

The SANITARIUM



Battle Creek
Michigan

E.A.

The Temple of Health

A Pictorial History of The Battle Creek Sanitarium

by Patsy Gerstner

CADUCEUS

*A Humanities Journal for Medicine
and the Health Sciences*

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A special issue of
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*Medicine and the Health Sciences***

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In memory of
Margaret Ruth Clarke Gerstner and
Katherine Ruth Gerstner Plank

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Part of the above collection is owned by Duff Stoltz; part is owned by the Adventist Heritage Ministry, the offices of which are in Silver Spring, Maryland, Alice R. Voorheis, president. I wish to thank both for permission to use photographs from their collections in this volume. I also want to thank Elmer J. Martinson, M.D., of Wayzata, Minnesota, for permission to use photographs of the Sanitarium from the Dr. Carl Martinson Library.

Early in my research, I spent a delightful few hours with Gladys Wyles of Berea, Ohio, a graduate of the Battle Creek Sanitarium Training School for Nurses. Her description of the Sanitarium in the late 1920s provided a personal sense of the Sanitarium's history that I might otherwise have missed. My correspondence with Doris P. Longman, a graduate of the Battle Creek College in nutrition, and Jean Stewart Boyd, M.D., who served on the Sanitarium's Pavlov Institute staff, provided helpful information and interesting sidelights.

Any work on the Sanitarium must rely to a great extent on the excellent study of John Harvey Kellogg by Richard W. Schwarz.



Fig. 1. The Grand Parlor, Battle Creek Sanitarium, 1880s

I am indebted to the W. K. Kellogg Foundation of Battle Creek for providing funds to assist with travel, photography, and publication. Without that help, this work would not have been accomplished.

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Glen Cemer of Battle Creek and James Edmonson of Cleveland, Ohio, donated their time and skills to make copies of original photographs and published pictures for use in this pictorial history.

I hope that each will find this volume a measure of my gratitude.


Health Reform Institute,

BATTLE CREEK, MICH.

This Institution is admirably located on a site of twenty acres, in the highest part of the pleasant and enterprising city of Battle Creek, commanding a fine prospect, and affording ample opportunities for entertainment, quiet, and retirement.

With a competent corps of Physicians and Helpers, it offers to the sick inducements that are offered by few others. Diseases are treated in a thorough and scientific manner, and with a degree of success impossible under any other mode of treatment. The principal curative agents employed are

Electricity, Water, Swedish Movements, Hot - Air Bath, and Russian Vapor Bath.

BATTLE CREEK is an important station on the Michigan Central and Chicago & Lake Huron Railroads, and is easy of access from all parts of the country.  For Particulars see Circular, sent Free on application.

Address,

HEALTH INSTITUTE,

BATTLE CREEK, MICH.

Fig. 2. This advertisement for the forerunner of the Battle Creek Sanitarium appeared in the 1870s.

Part 1

From Gentle Obscurity to Worldly Fame, 1866–1902

In the late nineteenth and early twentieth centuries, the Battle Creek Sanitarium was known throughout the United States and abroad as the ultimate destination for the famous and the ordinary who sought relief from nagging physical discomfort and the promise of a healthy future. Thousands came each year to this institution in southern Michigan, affectionately referring to it simply as “The San.” The phenomenal success of the Sanitarium can be credited to one man, John Harvey Kellogg.

In 1876, Kellogg took charge of a small ten-year-old health establishment operated by Seventh-day Adventists in the tiny hamlet of Battle Creek (fig. 2). He turned it into one of the greatest health experiments of all time, creating a place that was revered by its devotees as a temple of health. Under Kellogg (fig. 3), the Battle Creek Sanitarium grew from a modest frame dwelling to an edifice accommodating seven hundred guests a day at the end of 1900. By 1928, fourteen hundred people daily were cared for and catered to by a staff of eighteen hundred. One author noted in retrospect that the Sanitarium not only offered refreshment for the body, mind, and spirit but also provided “the combined features of a medical boarding-house, hospital, religious retreat, country club, tent Chataqua, [and] spa.”¹

Kellogg believed that good health could be maintained and that illness could be

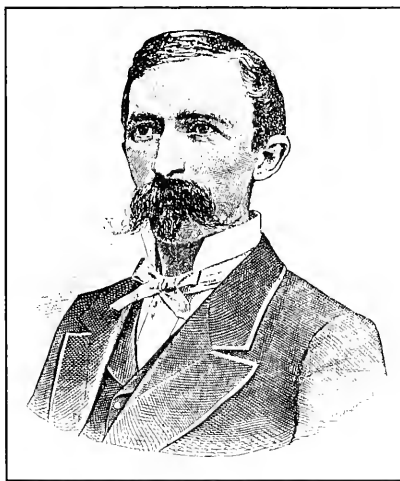


Fig. 3. John Harvey Kellogg in his early twenties, shortly after he assumed the superintendency of the Western Health Reform Institute

cured through “biologic living,” a concept heralded far and wide as the Battle Creek Idea. The Battle Creek Idea emphasized a healthy diet (preferably vegetarian), exercise, fresh air, water therapies, electrical stimulation (especially of the muscles), massage, good posture, abstinence from such things as alcohol and tobacco, and proper clothing that did not require tight undergarments (such as corsets) and that allowed the body to move in a reasonably unrestricted manner. The use of those measures to restore and maintain health was part of a health reform movement in the United States that predated the

Sanitarium, but Kellogg was fond of noting that he made the ideas “scientific” for the benefit of mankind.²

Early Health Reform

That health reform was of great interest to Americans during the first half of the nineteenth century is not surprising. Traditionally trained physicians of the day were often unsuccessful in their efforts to treat illness. Doctors tried to cure by purging the body of various substances thought to precipitate or contribute to illness. They customarily resorted to bloodletting and/or large doses of purgatives, emetics, and laxatives. Some of the prescribed substances, like mercury, were even poisonous. All-in-all, treatments were not only unsuccessful but were often more debilitating or deadly than the illness itself.

Harsh and unsuccessful treatment encouraged many sufferers to seek alternative means for cure, some of which were based on the simple replacement of harsh substances with mild and relatively harmless drugs. The health reformers, however, refused the use of any drug, preferring to find relief in only natural means. Many such therapies were based on a change in diet. Sylvester Graham, who is immortalized by the Graham cracker, argued in the 1830s that refined white flour had damaged the average American’s health. In its place, he advocated the use of coarser whole wheat (or Graham flour) as a way to restore health and safeguard against future illness. The preferred American diet was one of meat—rich in fat and enormous by today’s standards—but Graham and others recommended a vegetarian diet, arguing that meat was an unnatural stimulant, dirty and poisonous, that encouraged disease.

Vegetarianism and the other natural means of attaining health were popularized through the so-called Graham Boarding Houses and by touring speakers. Many influential lecturers were women, who encouraged homemakers to take charge of their own health and that of their families by adopting the principles of health reform. Despite the popularity of such ideas, however, health reform lacked a strong institutional setting in which to flourish. That base was provided in part at mid-century by a burgeoning number of water-cure sanatoria.

The Water Cure

The curative powers of plain water had been heralded since antiquity, but it was the persuasive work of Vincent Priessnitz (1799–1851) in Europe that created a great international water-cure mania. Priessnitz, the son of a Silesian farmer, suffered a serious injury as a child. A wagon, a steep hill, and a sudden overturn resulted in crushed ribs. Doctors warned him that he should not expect to recover fully. Young Vincent refused to accept that dire prognosis, however, and set out to find his own cure. He devised a treatment of cold baths and wet wraps and gradually regained his health. Convinced that his recovery was due to the treatment, he began offering it to others in 1826. Priessnitz attracted widespread attention, and by 1842 his cure had made its way to England. Within a few months, it had crossed the Atlantic. By the mid-1850s, more than two hundred water-cure sanatoria dotted the landscape from New York (fig. 4) to Wisconsin, promoting the use of water, exercise, fresh air, diet, and proper clothing as the keys to health—a message that the water-curists promoted in their

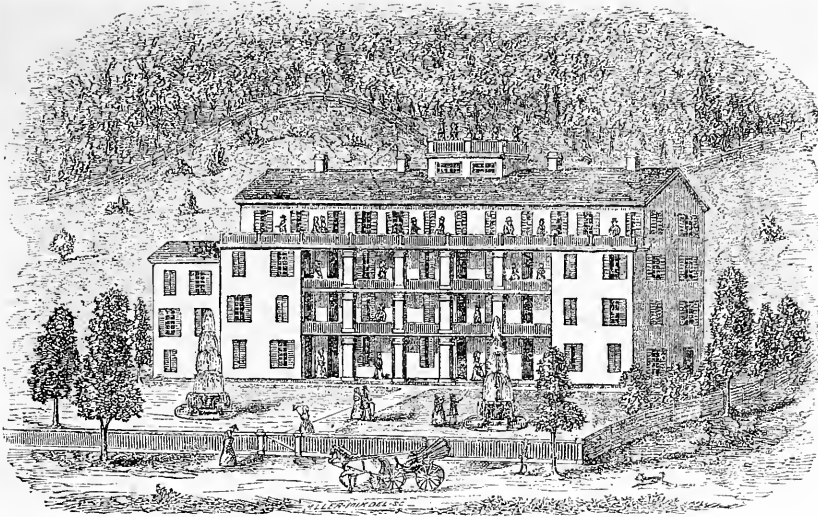


Fig. 4. The promoters of the Dansville, New York, water-cure facility pledged: "We believe that we can cure all curable diseases, and diseases which under any other treatment are incurable."

own journal, appropriately called the *Water Cure Journal and Herald of Reforms*, first published in 1845.³

Although some water-cure sanatoria survived into the early twentieth century, most began to fade by the mid-1860s. Many believers turned their back on the pure, soft water that was at the heart of the water-cure treatment and instead sought relief in mineral waters. At the same time, the excessive medical therapies that prompted health reform were disappearing. Although the wave of health reform was declining, the ideas embodied in it became the foundation for a new institution in Battle Creek begun by members of the Seventh-day Adventist church.

The Western Health Reform Institute

Adventism, a central tenet of which is a belief in the second coming of Christ, enjoyed considerable popularity in Europe and America in the mid-1860s. Seventh-day Adventists were the largest Adventist group in the United States. Members considered

their strong-willed leader, Ellen G. White (1827–1915), a prophetess. When she experienced what she believed to be a divine vision instructing her in the significance of the principles of health reform and the need to have a place where its practice could be combined with Adventist beliefs and appropriate prayer, she urged her fellow believers to establish just such a place in Battle Creek.⁴ With her personal gift of five hundred dollars, White initiated a nationwide fund-raising campaign. Her gift, handsome by the day's standards, was matched by another leading Adventist in Battle Creek, John Preston Kellogg, who was the father of ten sons. Altogether, eleven thousand dollars was raised. With that money, a modest farm in Battle Creek was purchased and developed as the Western Health Reform Institute (fig. 5). Each contributor became a shareholder in the Institute, and it was expected that the Adventists would continue to provide support.

According to its founders, the Western

Fig. 5. *The Western Health Reform Institute in 1866*



Health Reform Institute was established for “the treatment of disease and [for] imparting instruction in the principles of Hygiene [health] for compensation and also for purposes of benevolence and charity.”⁵ An early circular stated:

[N]o drugs whatever, will be administered, but only such means employed as NATURE can best use in her recuperative work, such as Water, Air, Light, Heat, Food, Sleep, Rest, Recreation, etc. Our tables will be furnished with a strictly healthful diet consisting of Vegetables, Grains, and Fruits. And it will be the Aim of the Faculty, that all who spend any length of time at this Institute shall go to their homes instructed as to the right mode of living, and the best methods of home treatment.⁶

The Institute opened in 1866 with a staff of two hydropathic (water-cure) doctors (Horatio S. Lay and Phoebe Lamson), one nurse, and a few helpers. Lay had been

apprenticed to regular physicians for a brief period, but he decided that water cure and health reform were more important. At the time that the Institute was about to open, he was on the staff of a well-known water-cure sanitarium in Dansville, New York, run by James Caleb Jackson. Lamson had no medical or hydropathic training at the time she came to the Institute, but shortly thereafter she spent a winter at the Hygieio-Therapeutic College in Florence Heights, New Jersey.⁷ Its president was Russell Thatcher Trall, who was a founder of the *Water Cure Journal*, the author of many health books, an officer of the American Vegetarian Society, and the proprietor of one of the nation’s oldest water-cure sanitariums.

In spite of a promising start and more patients than expected, the Institute faced an uphill struggle. Demand soon overwhelmed the small frame building, and

plans were made for expansion. Both plans and continued growth in number of patients faltered, but after some reorganization the future of the Institute looked promising. It was clear that more doctors were needed. In 1872, James White, Ellen's husband and one of the Institute directors, asked John Preston Kellogg's oldest son, Merritt, to join the staff. A graduate of a six-month course at Trall's Hygeio-Therapeutic College, Merritt, who was living in California, agreed but wished to repeat Trall's course. White decided to send Merritt's charismatic younger half brother, John Harvey, along with him.⁸

John Harvey, at age twenty the youngest of the Kellogg sons, had been studying to be a teacher. He had no medical training whatsoever but agreed to enroll in Trall's college. It was not long, however, before John Harvey and Trall disagreed on some basic issues of what was to be included in his medical education. John Harvey left New Jersey and, with the encouragement of the Whites, enrolled in the College of Medicine and Surgery at the University of Michigan. A year later, he went on to Bellevue Hospital Medical College of New York, from which he received a medical degree in 1875. Although traditional medical schools like the College of Medicine and Surgery and Bellevue did not subscribe to the principles of health reform, the Whites believed that it was acceptable, even important, for Adventist doctors to receive a traditional medical education. They thought that by participating in the education of a typical physician, the reform-minded doctor would be better able to combat unacceptable practices.⁹

In 1874, John Harvey Kellogg was elected to the board of directors of the Institute and served as its secretary. Upon gradua-

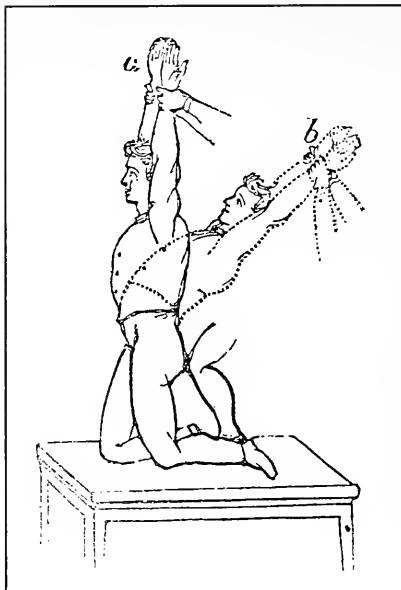
tion in 1875, he was hired by the Institute as a physician. He was so successful that within months he was offered the position of physician-in-chief. He declined, however, because he wanted to go to Wilmington, Delaware, to write a book and to arrange for a health exhibition at the Centennial Exposition, the world's fair then underway in Philadelphia. Nevertheless, when James White resigned as president of the board of directors in August 1875, John Harvey hurried back to Battle Creek to accept the interim presidency; he served until White returned later in the year.¹⁰

In July 1876, the position of physician-in-chief was again offered to John Harvey. According to the board minutes, Elder White was directed to "extend to Dr. J. H. Kellogg an urgent invitation" to accept the position.¹¹ That the invitation was characterized as "urgent" reflected the serious problems faced by the Institute. In spite of its resurgence at the beginning of the decade, its finances were weak, its popularity once again diminished, the number of patients was declining, and the medical staff appears to have been in a state of chaos. In an effort to save the Institute, the directors offered Kellogg a free hand to reorganize. Kellogg accepted, and the Institute began an odyssey that carried it from an obscure Seventh-day Adventist experiment to an institution known throughout the world.

The Battle Creek Sanitarium

Under Kellogg's leadership, the popularity and income of the Institute increased rapidly. He continued the principles of health reform advocated at the Institute, including diet, exercise—especially the resistance exercises developed in Sweden

Fig. 6.
Demonstration
of "Swedish
movements"



known as "movement-cure" or "Swedish movements" (fig. 6)—fresh air, proper clothing, abstinence from stimulants, the use of electrical stimulation, and, of course, water. To those, he added surgery. Before his first year had ended, an addition was built onto the main building and several Battle Creek cottages were rented to house more patients. In 1877, he renamed the Institute the Medical and Surgical Sanitarium, after which it was commonly known as the Battle Creek Sanitarium. He believed that the new name would become synonymous with "a place where people learn to stay well."¹²

Kellogg advertised the Sanitarium as a place especially suited for individuals with "chronic nervous disorders, functional disturbances of the stomach, and other chronic diseases."¹³ The most common problems had to do with gastrointestinal upset, usually constipation, a condition that many health reformers attributed to the con-

sumption of refined flour. Neurasthenia—a vague but popular term defining nervousness, fatigue, and stress, often affecting women—was also a common complaint. Women, in fact, represented about half of the Sanitarium patients, and they were attended to by special staff (fig. 7).

Throughout the nineteenth century, women were often regarded as the "weaker sex"—the physical and mental inferiors of men—but health reformers customarily dismissed the idea. They argued that women's health could be improved by the same things that improved men's health, namely, exercise, diet, and fresh air. Kellogg believed that women were weaker only because of their own doing, not as the inevitable result of nature. "Women," Kellogg once wrote, "have become so accustomed to hearing themselves called the 'weaker vessel' that they have come to consider themselves as such. The average woman supinely says, 'I am expected to be an invalid; I am supposed to be sick and weak, because I am a woman.'"¹⁴ Kellogg expected women to embrace all of the Sanitarium activities offered to men (figs. 8, 9). If a woman arrived without proper clothing, she was encouraged to visit the Sewing Department, where an appropriate wardrobe was prepared for the rest of her stay (fig. 10). Kellogg's idea of a proper dress was one that was warm but not heavy, did not gather dirt from the ground, and did not require tight undergarments.¹⁵

Growing popularity stressed the Sanitarium beyond its limits. Before becoming chief physician, Kellogg had been a member of a committee to draw up plans for a new building. The time was right, and buoyed by the profits from the burgeoning enterprise and a special drive launched by James White for \$25,000,



Fig. 7. A group of bath attendants for ladies in 1878

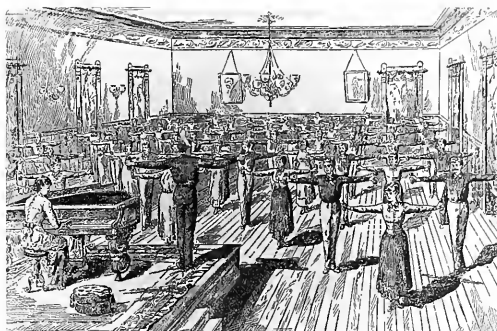


Fig. 8. Women and men share a workout in the gymnasium, 1888



Fig. 9. A turn at the boxing bag, 1910

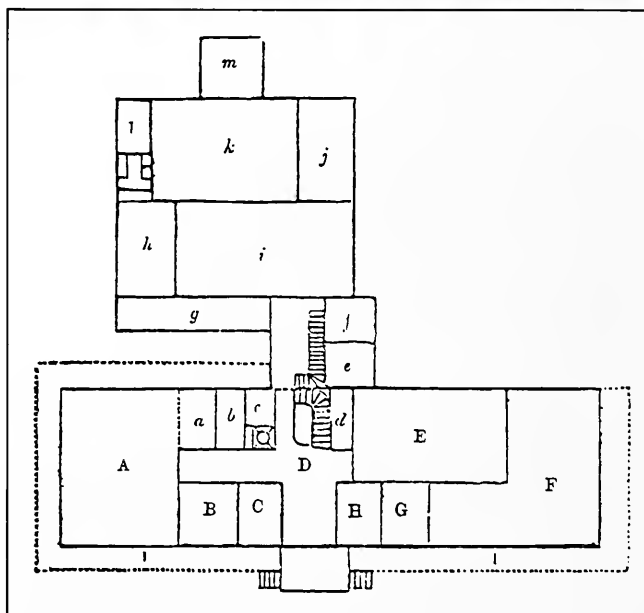


Fig. 10. The Sewing Department, ca. 1915

Fig. 11.
Exterior of the
1878 building



Fig. 12. First-floor diagram of the 1878 building: A, parlor; B, reception room; C, counting room; D, main hall; E, gymnasium; F, dining room; G, laboratory; H, physicians' office; a, library; b, ladies' washroom; c, elevator; d, cloakroom; e, washroom; f, water closet; g, drying room; h, electric room; i, dressing room; j, packing room; k, general bathroom; l, Turkish, Russian, and electro-vapor bathrooms; and m, clothes room



Kellogg set about implementing those designs.¹⁶ Although the total amount needed was not reached, the Sanitarium was able to borrow enough money to construct a building that, fully equipped, cost more than \$50,000.

The new building, which had a capacity of three hundred guests, was completed in 1877 and opened in 1878 (figs. 11, 12). Designed by architect W. K. Loughborough of Battle Creek, it was said to “constitute the largest and most perfectly constructed edifice of its kind in America [and] the only one, of any note, specially built for, and adapted to, the purpose of a hygienic hospital and home for the sick.”¹⁷ The Sanitarium was set on an elevation, which Kellogg thought provided more and better

fresh air. The climate was free from great extremes of temperature, and the whole setting was restful and conducive to peace of mind and healthy living.

The main building was four stories high, measuring 150' x 50'. A rear extension, 60' x 60', contained facilities for treatment. The building was faced with brick, and the mansard roof was shingled and painted to resemble slate. A porch, supported by stone pillars with stone steps on each side, provided an inviting entrance and was constructed so that visitors could alight directly from a carriage. A center front tower, extending a full fifteen feet above the roof, created an imposing façade. A conservatory located on the second floor of the tower provided guests with a peaceful place to



Fig. 13. A Grand Parlor audience awaits a lecture; the inset shows a doctor interviewing a patient.

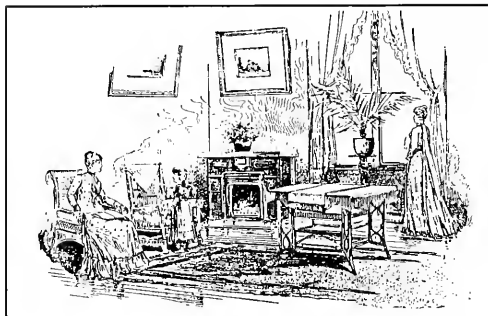


Fig. 14. A typical Sanitarium guest room, 1888

Fig. 15. Rate card from 1888

Expenses, · Etc.

The following rates for board and treatment include in the price for each room or suite, table board, (two meals a day), medical attention, and regular treatment, consisting of two treatments daily in the treatment rooms,—one in the bath-rooms, and one in the mechanical movement rooms:—

Single room in Main Building,	\$10.50 to \$20.
Suite of two rooms in Main Building, occupied by one person,	\$16 to \$27.
Two persons in single room, each,	\$10 to \$16.50.
Single room in Cottage,	\$10 to \$15.
The difference in prices of rooms is chiefly due to difference in location, style of furnishing, etc.	
Board, without treatment, per week,	\$6 to \$14.
Meals in room, extra, each,	10 cts.
Regular meals in room, extra, per week,	\$1.50.
Nurse,	\$7 to \$10.
Half Nurse,	\$4 to \$5.50.
Examination of new patients,	\$5.

No charge for office consultation or examination of old patients.

For office treatment for eye, ear, or other specialties, a small extra fee is charged.

For surgical operations a charge is made according to the nature of the operation and the circumstances of the patient

Special rates are made to physicians and clergymen and their families, and to worthy objects of charity.

A steam laundry connected with the Institution does laundry work at moderate rates.

What to Bring.—Each patient should bring with him the following articles for use in connection with treatment; or, if preferred, they may be cheaply purchased or rented here: Two Turkish or cotton bath sheets, two woolen blankets, four towels, (Turkish preferred), and two yards of heavy white or gray flannel.

Hacks will be found at all trains, and patients are received at the Sanitarium at all hours, night or day.

Street cars run from the railway stations to the Sanitarium.

Telephone and telegraph connections.

Feeble persons requiring special assistance should, on starting from home, telegraph the time at which they will arrive, and they will be met at the train by an assistant from the Institution.

Any further information desired may be obtained by addressing the Medical Superintendent, Dr. J. H. KELLOGG, Battle Creek, Mich.

Estimates to cover total expense given when desired.

MANAGERS SANITARIUM.

rest—an environment where “rare and exotic flowers and shrubs make a summer all the year; [where] delicate vines trail over the sash, and the luxuriance of growth and color . . . makes the little *bijou* of a garden seem like a stray morsel of the sunny South.”¹⁸

The building was magnificent for its time, with every detail carefully planned by Kellogg. A Grand Parlor on the first floor provided a pleasant meeting place for guests (fig. 13) and became the site of lectures by Kellogg or a guest speaker on Wednesdays and Fridays at 9:00 A.M., when the topic might be the evils of tobacco or the importance of diet. On Mondays, Kellogg met with guests to answer questions that had been dropped in the “Question Box,” which became a permanent feature of the Grand Parlor. On Tuesday afternoons, there were lectures for women only.

Guest rooms were large, measuring at least 11' x 15' (fig. 14), and suites of rooms were available on the corners of the second floor. Such spacious and comfortable accommodations belied an association with medical care. A stay at the Sanitarium was, in fact, not unlike a stay at an elegant hotel, although by the late 1880s at \$10 to \$20 per day for a single room (without treatment), the Sanitarium was more expensive than most hotels (fig. 15).

Despite Kellogg's setting of comfort and gentility, the actual business at hand was health, and guests spent their days in its pursuit. Physicians' offices, the gymnasium, and a laboratory dominated the lobby, while the rear extension of the building included space for Turkish, Russian, electro-vapor, and fifty other kinds of baths. There was a room for electric treatments and for Swedish movements. Because the light, heat, and burning rays of the sun

were all considered healthful, there was even a room for sunbathing. In summer, exercises were moved to the outdoors so that the fresh air itself became part of the treatment for, as Kellogg often noted, “God's oxygen is the best tonic known.”¹⁹ During the summer months, the gymnasium was used as an extension of the dining room to accommodate a greater number of guests (see diagram at fig. 12).

To further ensure the patients' health and comfort, Kellogg had pure water piped to the building from wells a half mile distant. The water was not allowed to come into contact with lead or other materials, which Kellogg recognized as potentially dangerous. At a cost of nearly \$10,000, the most modern heating and ventilating systems were installed, and both hot and cold water were piped to every room. The building was heated by steam that was generated by two “immense” boilers in the basement, and each room had a radiator. Fresh air was circulated to every room by a system of ducts. Air entered the building through a large, main duct that ran vertically through the building, branching off to every room. Other ducts carried away stale air. The stale air was pulled out by a draft created by the heat of the smokestack (rising from furnaces in the basement) that passed through the central duct. Food was cooked with steam and delivered from the basement kitchen to the upper floors via a dumbwaiter. The building was lighted throughout with gas manufactured in the basement from gasoline. Kellogg considered his product to be cleaner than commercially available gas.

A Prophecy Fulfilled

In 1877, Adventists had proclaimed that the Sanitarium was destined “to wield a mighty influence in the world, and to be a

Fig. 16. The Sanitarium Hospital, completed in 1888



powerful means of breaking down the old, pernicious autocracy of empirical medical practice, and of encouraging sanitary [health] reform.”²⁰ By the early 1880s, the ever-growing popularity of the Sanitarium suggested that the prediction was rapidly becoming reality. In fact, despite the grandness of the new facility, it, too, became overcrowded.

Kellogg proposed an addition costing another \$50,000. Again with borrowed money—and over the objections of Ellen White—an addition was designed for the south end of the building and opened in 1884, increasing the Sanitarium’s capacity by more than 50 percent. The addition not only expanded the space for various treatments (particularly the popular water ther-

apies) but offered the latest conveniences. By 1888, electric lights had replaced the gas fixtures.

Fountains and serene landscaping continued to enhance the natural beauty of the setting, as an 1880s publications observed:

The spacious grounds about and in front of the Main Building are laid out in beautiful lawns, studded with natural forest trees and ornamental trees and shrubs. Two fine groves afford a pleasant shade for out-of-door recreation in summer.

In front of the main entrance, a large fountain adds beauty to the view, and moistens and purifies the air with its cooling spray. From the roof and verandas, and most of the private rooms, is commanded a

most delightful view of natural scenery in great variety; high distant hills, rolling fields, groves, meadows, rivers, little lakes and winding brooks, with the pleasant little city close at hand, make up a view which is rarely excelled in the Middle States.²¹

During the summer, Sanitarium guests who preferred an even more sylvan setting for their stay could reserve a room in a boardinghouse at Lake Goguac, about two miles from the Sanitarium and a popular playground for Battle Creek residents. The Sanitarium leased a desirable portion of the shore for its exclusive use and constructed the boardinghouse sometime in the 1890s. A large pavilion provided shelter for picnics.

In 1888, a separate hospital building was erected, capable of accommodating two hundred persons (fig. 16). Previously, guests in need of hospital care had been cared for in a section of the main building. The new building had a twofold purpose: First, it isolated the seriously ill and the surgical patients; second, it housed indigent patients.²² From its very beginning as the Western Health Reform Institute, the Sanitarium had accommodated charity patients, and the new hospital building provided space for an ever-increasing number of those patients.

Kellogg, who considered surgery one of his specialties, often spent long days in the operating room. He was proud of the “up-to-date operating rooms, aseptic wards, and conscientious surgical nurses and assistants [who] make this department successful in saving the lives of hundreds of cases annually.”²³ While Kellogg attributed a high success rate in surgeries performed at the Sanitarium to those factors, he believed that the critical factor in successful surgery was the patient's participation

in the total treatment program. Diet, exercise, appropriate baths, and so forth strengthened the patient, creating a strong system to endure and overcome the hazards of surgery.

Some time between 1884 and 1888, Kellogg added an “aseptic maternity” and a department for the treatment of the diseases of women. He believed that, as with surgical patients, the Battle Creek regimen would improve the general condition of women and go a long way toward eliminating gender-specific disease and the trauma commonly associated with childbirth.

Kellogg was ever alert to the comfort and convenience of guests, and he constantly sought to make their stay more pleasant and worry free. In 1886 he opened a nursery and kindergarten for young children, thus ensuring that parents could participate fully in Sanitarium programs. Children were not required to follow the Sanitarium health regimen, but elementary principles of healthy living were introduced in the nursery when possible.²⁴

Expansion was ongoing. In 1891, a second addition was made (at the north end of the main building), and in 1895 an entire story was added to the main building (fig. 17). As Kellogg neared the twentieth anniversary of taking leadership of the Sanitarium, the future seemed bright. In addition to the impressive 1878 building and its many additions, there were twenty guest cottages, three dairy and small fruit and garden farms, the Lake Goguac facility, dormitories for nurses, and a building devoted to offices and laboratories on the campus of Battle Creek College (a Seventh-day Adventist school just across the street from the Sanitarium). There was no want for guests. While the Sanitarium grew and prospered, Kellogg also worked to make

sure that its sphere of influence reached far beyond its physical boundaries.

Supplying the Nation with Proper Food

An essential part of the health reform movement concerned diet. At the Western Health Reform Institute and at earlier water-cure establishments, vegetarianism was recommended, if not always insisted upon. Kellogg, himself a vegetarian, allowed meat to be served at the Sanitarium until about 1890, but he encouraged his patients to eat wholesome grains in addition to, or rather than, meat (fig. 18). The problem with grain, however, was in the eating. Grains were hard, and although they could be soaked or boiled for easier eating, they remained at best a pulpy, indigestible mass with bits of grain so hard that they could—and did—break teeth.

In 1877, in an effort to improve the Sanitarium menu, Kellogg developed a small biscuit made of oats, corn, and wheat, which he baked for a long time. He thought that the prolonged baking would break down starch in the grains, making them easier to digest. He named his product Granula, after a whole-wheat product developed by an early health reformer; threatened lawsuits over the name, however, caused him to change the name to Granola. The biscuit was such a success with patients that soon Kellogg promoted it for sale outside the Sanitarium, offering it as the perfect food for the “tired editor, the overwrought financier, the worn-out teacher, the exhausted clerk and the studious scholar . . . the food par excellence for the laboring man’s breakfast.”²⁵ With that venture, Kellogg entered the business world, created a major health food indus-

Fig. 17. By 1895, the Sanitarium had been enlarged with a fifth story plus two additions.

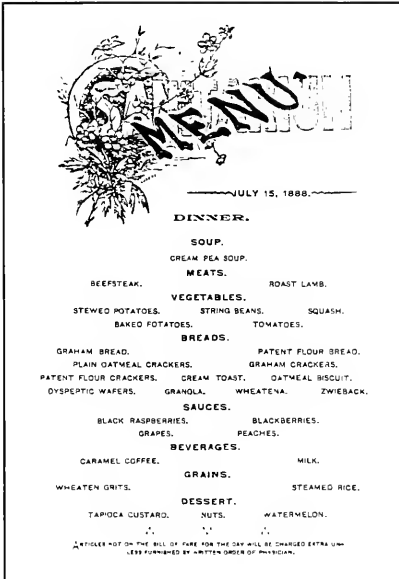


try, and played a key role in the development of America's giant cereal industry.

Although popular, Granola remained difficult to eat because the bits of whole grain were hard. Kellogg and his brother William K. ("W. K.") Kellogg, who served as accountant and business manager at the Sanitarium, worked together to improve the edibility of grains, and they discovered a way to make thin flakes of the grain, flakes that were easy to chew and easy to digest.

The first flaked product, Granose, was marketed in 1894. Other flaked cereals soon followed—including cornflakes. The Sanitarium directors agreed to underwrite the cost of producing and marketing Granola and the first flaked cereals, which were sold nationally under the name Battle Creek Sanitarium Health Food Company. Business was so good that a cereal factory was opened near the Sanitarium, and additional space was soon needed. The Sanitarium directors were unwilling to underwrite the cost of that additional space, however. Consequently, the Kellogg brothers opened an independent cereal factory, which they incorporated as the Sanitas Food Company. Although the Kelloggs together developed the grain-flaking process on which the cereal industry is based, it was the marketing genius of W. K. that made flaked cereals a household necessity in the twentieth century.²⁶

John Harvey Kellogg also developed and marketed several other products, including many based on nuts. About 1890, he eliminated meat from Sanitarium menu options because he believed that it was difficult to digest and filled with germs. For the same reasons, he eventually banned dairy products. Nuts, he believed, were an excellent substitute for meat and milk. Among the nut products were Bromose, which he con-



JULY 15, 1888.

DINNER.

SOUP.			
CREAM PEA SOUP.			
MEATS.			
BEEFSTEAK.	VEGETABLES.	ROAST LAMB.	
STEWED POTATOES.	STRING BEANS.	SQUASH.	
BAKED POTATOES.	TOMATOES.		
BREADS.			
GRAHAM BREAD.	PATENT FLOUR BREAD.		
PLAIN OATMEAL CRACKERS.	GRAHAM CRACKERS.		
PATENT FLOUR CRACKERS.	CREAM TOAST.	OATMEAL BISCUIT.	
DYSPEPTIC WAFERS.	GRANOLA.	WHEATENA.	ZWIEBACK.
SAUCES.			
BLACK RASPBERRIES.	BLACKBERRIES.		
GRAPES.	PEACHES.		
BEVERAGES.		MILK.	
CARAMEL COFFEE.	GRAINS.		
WHEATEN GRITS.	DESSERT.	STEAMED RICE.	
TAPIOCA CUSTARD.	NUTS.	WATERMELON.	
ARTICLES NOT ON THE BILL OF FARE FOR THE DAY WILL BE CHARGED EXTRA UNLESS FURNISHED BY WRITTEN ORDER OF PHYSICIAN.			

Fig. 18. This 1888 menu offered beef and lamb as well as a multitude of vegetables, grains, and fruits. Around 1890, Kellogg eliminated meat from the Sanitarium menu.

sidered the vegetable equivalent of malted milk, Nuttose, a substitute for meat, and Malted Nuts, a substitute for milk. Malted Nuts was, he thought, an especially good substitute for cow's milk because it was easily digested by those who were sensitive to milk sugar. It was also a good substitute for mother's milk and cow's milk because it was rich in iron, which neither of the others are.

Several nut butters were also developed, including a type of peanut butter in 1892. Unlike today's popular varieties (which are made from roasted nuts), Kellogg steam-cooked the nuts because he believed that the roasting process altered the nut's fat content in such a way as to irritate digestion.

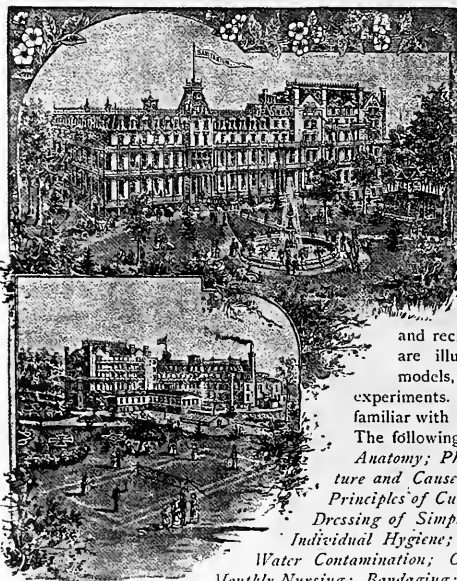
He also developed grain-based artificial coffees, among them Minute Brew and Caramel Cereal Coffee. The latter enjoyed

Fig. 19. The Sanitarium Training School for Nurses opened in 1883 with a six-month program. It grew to a full two-year course.

Sanitarium Training School

FOR NURSES.

Regular Terms begin Nov. 1. Students Received at Any Time.



This School has now been in operation for five years, with constantly increasing patronage and success.

Course of Instruction.

The course of instruction comprises two series of lectures, recitations and practical instruction, continuing through two years.

Methods of Instruction.

The instruction is both theoretical and practical. Several lectures and recitations are given each week. Lectures are illustrated by means of colored charts, models, fine French Manikins, and numerous experiments. Each student is required to become familiar with the subjects taught, by actual practice.

The following are among the leading topics taught: *Anatomy; Physiology; Elementary Chemistry; Nature and Causes of Disease; Language of Disease; Principles of Cure; Management of Common Diseases; Dressing of Simple Wounds and Injuries; General and Individual Hygiene; Ventilation; Disinfection; Air and Water Contamination; General Nursing; Surgical Nursing; Monthly Nursing; Bandaging; Hydrotherapy—theoretical and practical; Electricity—Faradic, Galvanic, Static; Diet for the Sick; Massage; Swedish Movements; Calisthenics; What to do in Emergencies.*

Special Advantages.

The advantages offered by this school are in many respects superior to those offered by any other, not excepting the older schools in the large cities.

TERMS.—Students pay board and tuition in labor the first year; wages are paid the second year.

For Circulars giving full information, address,

SANITARIUM, Battle Creek, Mich.

considerable popularity but was displaced by a similar product called Postum, which was developed by future cereal magnate C. W. Post.²⁷

Spreading the Word

Kellogg recognized the importance of educating teachers and practitioners who could carry the Sanitarium principles to others. During his first two decades at the Sanitarium, he established several schools where medical students, aspiring medical missionaries, nurses, dietitians, and others were trained to treat and care for the sick.

The first school opened in 1878. It was the School for Hygiene, which consisted of a twenty-week session during which prospective Seventh-day Adventist medical students were taught diet, hygiene, dress, and hydrotherapy. The school lapsed for a few years, but in 1889 the School of Hygiene became the Sanitarium Training School for Medical Missionaries, which survived until the early twentieth century.

Nurses were trained at the Sanitarium Training School for Nurses, which opened in 1883. A six-month training program at the outset, it was quickly increased to two years. The program included work at the Sanitarium, and many graduates stayed on as full-time employees (fig. 19). In fact, for a period of time, only students who would agree to work for the Sanitarium for five years after graduation were accepted.²⁸

In 1888, Kellogg and his wife Ella opened the School of Domestic Economy, offering a twenty-five-week course that included cooking, dressmaking, general housework, and hygiene. It was absorbed a few years later in the Training School for Medical Missionaries; when that program was discontinued, the School of Domestic Economy reappeared about 1905 as the Battle Creek Sanitarium School of Health

and Home Economics. Its main purpose was to train dietitians for hospitals, private clubs, schools, and factory cafeterias. As late as 1919, a two-year course was initiated to prepare young women to teach home economics in elementary and secondary schools.²⁹

The American Medical Missionary College (not to be confused with the Training School for Medical Missionaries), was established in 1895 to train Seventh-day Adventists who wanted to be physicians.³⁰ Kellogg had once trained physicians through private instruction. When that was no longer possible because of changes in state laws concerning requirements for medical education, Adventists were sent to the University of Michigan for their training in medicine. While at Michigan, some students gave up their interest in health reform in favor of the kind of standard medicine being taught at the University. To keep Adventist students from being thus corrupted, Kellogg and several Adventist leaders organized the American Medical Missionary College. Kellogg presided over the school, which operated under an Illinois charter. Classes were conducted in both Battle Creek and Chicago. The school took only students who promised to work as medical missionaries the rest of their lives. The school merged with the Medical School of the University of Illinois in 1910.

Kellogg also instituted a Normal School of Physical Education, where students were trained in the art of exercising (see outside back cover).

Taking the Sanitarium to Others

In 1893, under Kellogg's urging, the Seventh-day Adventists established the Medical Missionary and Benevolent Association. Between then and 1903, the

Fig. 20. An urban vegetarian restaurant and treatment room, location unknown



Association established over thirty branch sanitariums, treatment rooms, vegetarian restaurants (fig. 20), and urban medical missions, located in such diverse places as Guadalajara, Honolulu, Philadelphia, Des Moines, Little Rock, Chicago, Lincoln, and Portland, Oregon. Kellogg served as president until the dissolution of the associa-

tion in 1906. The activities were financed by local Adventist conferences and by special fund-raising activities, usually led by Kellogg.

A branch was opened in Chicago in 1893, coinciding with the opening of the Columbian Exposition, or Chicago world's fair. It was funded by two Adventists, the

brothers Francis and Henry Wessels, who had profited from a diamond strike on family property in South Africa. Profits from this branch were used to open an urban mission that same year, providing free treatment with water and with electricity, a dispensary, obstetrical care, and laundry facilities (since the poor seldom had the opportunity to launder clothing).³¹ Battle Creek foods were also supplied. After 1895, the American Medical Missionary College in Chicago became an integral part of the work of the urban mission (fig. 21). Students set up additional programs in diet, dress, and gymnastics, and they also became involved in many social welfare activities. In 1896, the mission purchased a nearby abandoned church and converted it into a “working-man’s home,” providing shelter and food to indigent men.³²

A visiting nurses program was implemented soon after the mission’s founding. The nurses, who came to Chicago from Battle Creek, visited the impoverished sick of Chicago, bringing the Battle Creek treatments to them. Many nurses who came to Chicago actually went to work for wealthy families in order to provide money for the others to carry on the charitable work of the mission.

Changing the Operating Structure

The Sanitarium operated much like a non-profit organization does today. Its income was put back into the facility and toward programs to encourage health reform. A portion of the income was used to fund charitable programs. The Sanitarium was legally in the hands of a board representing Seventh-day Adventists, but Kellogg (who was by his own description “naturally strong willed, pugnacious, controversial, and skeptical”) exercised full control of the

Sanitarium and also had the voting rights of a board member.³³ Seventh-day Adventist patron Ellen White maintained a strong and occasionally confrontational presence in Sanitarium affairs. In 1884, for example, she had opposed expansion because she feared that the Sanitarium was becoming nondenominational and too much like a hotel.³⁴ She and her late husband James (who died after a very brief illness in 1881) had established the Institute as a place of spiritual and physical healing for Seventh-day Adventists; although she had never intended to close it to others, she considered an emphasis on the spiritual teaching of Adventism essential. Because Kellogg believed that his Battle Creek Idea should be available to all people, he refused to either promote the Sanitarium as a Seventh-day Adventist institution or to make spiritual healing an essential part of the Battle Creek Idea.³⁵ He acted to make sure that his ideas prevailed.

In 1897, as the Adventists were nearing the end of their thirty-year charter with State of Michigan, the board of directors allowed the institution to go into receivership (thus effectively declaring bankruptcy). That was probably a legal maneuver intended to avoid paying taxes. Kellogg was appointed receiver, and a new legal entity—the Michigan Sanitarium and Benevolent Association—was organized to purchase the Sanitarium. Kellogg worked to make sure that the property was not purchased by commercially-minded investors, primarily by showing them that the costs of running the Sanitarium would escalate under any arrangement other than the current one. One of his principal arguments was that staff members who were willing to work for low wages under him would insist on higher salaries under other management. His arguments were convincing, and his Sanitarium

*Fig. 21. The
dispensary of the
Chicago Mission*





Fig. 22. John Harvey Kellogg (seated in the middle of the second row) poses with some members of the medical and nursing staff about 1895. Female and male physicians are distinguishable in streetclothes; female physicians always served on the medical staff. Male nurses are absent from this picture, but their numbers were nearly equal to those of female nurses.

Association successfully bought all the facilities at public auction in 1898 for the cost of outstanding debts.³⁶

Under the new charter, original shareholders could nominate one person for membership in the new Sanitarium Association for each share of stock held, but voting rights were limited to shareholders who attended meetings in Battle Creek. As shareholders lived all over the country, the voting population was effectively limited to those who lived in or near Battle Creek. Ellen White had deserted Battle Creek in favor of California, where she looked forward to establishing new Seventh-day Adventist missions (a move

that resulted in the establishment of the College of Medical Evangelists, which later became the Loma Linda University School of Medicine). The majority of Battle Creek shareholders ratified Kellogg's articles of incorporation, which stipulated that the Sanitarium was to be nondenominational and nonsectarian.³⁷

The Sanitarium entered the twentieth century with well-established medical programs, a large clientele, and a secure operating structure. At peak season it cared for seven hundred patients and had a staff of one thousand people (fig. 22). In the midst of success, however, disaster struck.



Fig. 23. The fire



Part 2

The Temple Rises from the Ashes

In the early morning hours of February 18, 1902, a devastating fire broke out, burning the main Sanitarium building and the hospital to the ground (fig. 23). The cause of the fire was never determined. It originated either in a chemical laboratory or in the treatment wing, which was near the furnace.

The fire burned for nearly two hours. When it was over, virtually nothing was left. When the central part of the main building was constructed in 1877, all reasonable precautions had been taken to guard against fire: Hoses connected to the main water supply were installed on every floor, escape stairways were built on the outside of the building, rescue ladders were kept at hand, and male employees were organized in a fire company that was prepared to go into action should the occasion arise. Each floor of the addition was separated by supposedly fireproof materials. Once underway, however, the fire was unstoppable because under the brick façade was a wooden structure. The great ventilating ducts that provided fresh air to the patients tragically added a draft to the conflagration. Because the Sanitarium was atop a hill (and therefore level with rather than below the local waterworks), firefighters were hampered by low water pressure.³⁸

The lost Sanitarium property, which included the hospital, was valued as high as \$400,000, and the loss of guests' personal property was as high as \$500,000.³⁹ Fortunately, the advance precautions did save lives, and miraculously only one patient died in the fire, an eighty-three-year-old man. Kellogg was on his way to

Fig. 24. A group of Sanitarium employees by the ruins



California by train at the time of the fire, but he was notified en route and returned immediately.

For a few Seventh-day Adventists, the disaster seemed to be a warning that the Sanitarium had, indeed, become too worldly. Some even claimed to have seen the silhouette of a black horse with "extended head, open mouth and distended eyes, and the ears lying back on the head," on an untouched white wall in the ruins, surely a sign that the end of the world was near at hand.⁴⁰ To John Harvey Kellogg the fire was not a sign of anything. It was a disaster that called for immediate action, and he began at once to plan a new building (fig. 24). Rumors multiplied by the hour suggesting that the Sanitarium was to be moved to another location or that someone else would buy it, but Kellogg promised that if the city of Battle Creek backed him and his staff, he would rebuild and give the world a facility without parallel.

There were many reasons why the Sanitarium should stay in Battle Creek. Although continued expansion had left a debt of \$250,000 (with insurance of only \$150,000), the property owned and still usable by the Sanitarium was worth nearly as much as its debt. (That property included buildings on the former campus of Battle Creek College, which Kellogg had purchased in 1901 when the college relocated to Berrien Springs, Michigan.) Further, many prominent Battle Creek citizens expressed interest in contributing to a new building. There were some questions about the Sanitarium, however, that had to be answered before Kellogg could expect a fully favorable reception from local citizens. In setting up the new Sanitarium Association, Kellogg had centralized the administration of the auxiliary enterprises he controlled, including the food companies and the Good Health Publishing Company (which produced promotional literature for the Sanitarium and informa-

tion on healthy living). That arrangement had led some critics, Adventists and non-Adventists alike, to think that Kellogg had engineered the restructuring of the Sanitarium's ownership so that Sanitarium funds could be used for the benefit of those other enterprises and for his own personal profit.⁴¹

There were also serious longstanding issues concerning state and local taxes. When the Sanitarium Association was established in 1897, it paid taxes but did so under protest. Kellogg argued that it was a benevolent association that should be tax-exempt. After three years of paying taxes, the Sanitarium filed three lawsuits against the state, claiming that it had been unjustly and unfairly taxed. Just before the fire, a court in Battle Creek had ruled in favor of the Sanitarium in the first of the suits to be examined. The city of Battle Creek appealed the case to the Supreme Court of Michigan, and there matters stood at the time of the blaze.

Local businessmen convened shortly after the fire to consider the possible departure of the Sanitarium and its impact on the city. Questions about the tax status of the Sanitarium loomed large, as did rumors that Kellogg was pocketing riches at the expense of patients and local residents. On the other hand, businessmen knew that the Sanitarium had accounted for substantial local revenue. Kellogg was asked to come to a general meeting of citizens to talk about the Sanitarium and its management. As the result of this meeting—and at least partly at Kellogg's suggestion—a blue-ribbon committee of five local civic, religious, and business leaders was appointed to investigate the Sanitarium. The committee undertook a detailed investigation of Sanitarium operations and finances, with the goal of determining

whether the citizens of Battle Creek should take an active role in providing for a new sanitarium.⁴²

The reports, delivered at a large public meeting on March 17, 1902, were without exception favorable. Each member expressed surprise that he had ever harbored a notion that the Sanitarium operations were anything but upright and charitable or that Kellogg's motives were in doubt. The remarks of S. O. Bush, vice-president of the Advance Threshing Machine Company, characterized the thoughts of committee members:

Many of us . . . feared that [the Sanitarium] would not bear investigation. We believed, in other words, that the Sanitarium was a money-making institution, and that there was a pocket somewhere into which the profits were being dropped, and we did not know where it was, but I will simply say to you that after going into this investigation,—and we had everything placed at our disposal that we asked for, any books and all the books, vouchers, private accounts of individuals as well as the accounts of the Sanitarium,—we became thoroughly satisfied that the statements which had been made to us were absolutely correct; and I, for one, feel ashamed of some of the statements that I have made concerning the Sanitarium and its management before I went into this investigation; and so far as I am concerned, I feel this way, that whether they go or whether they remain in Battle Creek, I want to do what I can to place the management right before the people of this city.⁴³

Among other things, the committee members pointed out that not only did the Sanitarium staff work for very low wages but that Kellogg himself accepted no salary at all, directing that the money set aside for his salary be put into a charitable account for other purposes. Furthermore, at least a third of the Sanitarium patients

Fig. 25.
*Laying of the
cornerstone for
the new
Sanitarium
building*



were charity patients. No Sanitarium income was used for any outside purposes, including branch sanitariums. Kellogg, they said, took no advantage of his position for his own benefit, and that even if he used Sanitarium services or staff in any way, he paid for them. In short, they found the Sanitarium to be “a purely philanthropic and charitable institution.” It was the unanimous feeling of the committee that

[I]f we as a people and as citizens, if we who have white hairs on our heads, have a proper regard, not for those in our immediate presence, but for our children, and our children’s children, we cannot free ourselves from the fact that unless we are so lacking in public spirit and so lacking in that which tells men when to keep a good thing and when to give it up, we certainly will not permit this great Sanitarium to cease its work among our people and go elsewhere.⁴⁴

With that, the committee began a campaign to raise \$50,000 for the Sanitarium’s rebuilding. Their enthusiastic endorsement quelled challenges to the Sanitarium’s tax-exempt status, clearing the way for the institution to operate for the next few years without paying taxes.⁴⁵

Rebuilding began almost immediately, and the cornerstone was laid with great fanfare on May 4 (fig. 25), just three months after the fire. Through summer, fall, and winter the new Sanitarium took shape. While construction was underway, East Hall, a building on the Battle Creek College Campus, was used as a temporary sanitarium. On May 31, 1903, sixteen months after the fire, the new Battle Creek Sanitarium was dedicated amid the cheers of thousands who attended the ceremony.

The imposing Italian Renaissance style building, which still stands, is nearly one-

fifth of a mile long and six stories high (figs. 26, 27). The architect was Frank M. Andrews of Dayton, Ohio. Buff-colored brick faced the exterior, broken at intervals with gray brick pilasters. A central wing, which housed the gymnasium, and two flanking treatment wings extended from the rear. A rotunda, in which Kellogg developed another miniature tropical paradise—complete with colorful birds and butterflies flying among banana, fig, and orange trees—connected the gymnasium to the main building.⁴⁶

A loggia on the ground floor, running nearly the length of the building, became a favorite place for patients to enjoy the benefits of fresh air (fig. 28). Additional porches were located at the north and south ends of the building. In all, the Sanitarium included 32,000 square feet of porches and verandas on which patients could rest and sleep in the fresh air.



Kellogg advocated fresh, cold air in particular, and he designed an electric blanket/robe (fig. 29) for guests who desired warmth.⁴⁷

The interest that Kellogg attached to fresh air was apparent throughout the Sanitarium, which was described as “perfectly heated and ventilated.”⁴⁸ The ventilation system was a special source of pride, as it had been in the earlier building. Once again, a

Fig. 26. The Sanitarium from the rear, showing the gymnasium and two treatment wings



Fig. 27. Entrance to the Sanitarium

Fig. 28. The loggia



Fig. 29. The blanket/robe, designed by Kellogg himself



Fig. 30. The Porte-air directed fresh air to the patient's head.

system of ducts brought fresh air to every room and helped in the maintenance of constant temperatures throughout the building. Heavy masonry construction also assured constant temperatures throughout the year—about 70° in the daytime, and about 60° at night. It was nevertheless possible to regulate the temperature in each guest's room in accordance with the condition and needs of the person.

Although a flow of fresh air was assured throughout the building, Kellogg included at least one outside window in every room. Ingenious devices were developed to allow access to air for sleeping guests. In some cases a tentlike structure was built over the outside of the window that allowed the patient to lay with his or her head outside the window. Another device was the air tube or "Porte-air," which brought air inside the room directly to the patient's head (fig. 30).

The issue of fire was, of course, uppermost in Kellogg's mind when the new facility was designed. A careful investigation of construction alternatives resulted in a deci-

sion to build floors with reinforced concrete. Marble mosaic (nearly five acres of it) was chosen to cover the concrete since it, too, offered fireproofing and was also much easier to keep up than wood and less likely to harbor germs. The only wood in the building was used for trim (window and door casings and the like). It was generally red birch, finished to look like light mahogany; the Grand Parlor was trimmed in golden oak. Staircases were constructed of iron, marble, and slate; pillars and beams were made of iron and cement. When completed, the building was hailed as "the only absolutely fire-proof institution of the sort in the world."⁴⁹

Guests entered the Sanitarium through a shaded, covered porch that led directly into the Grand Lobby (fig. 31). A marble staircase and six steam-powered elevators were available to the upper floors. The tropical garden was directly opposite the main entrance, and guests could enjoy the view from any point in the lobby.

A hallway to the left (north) of the lobby led to the Grand Parlor (fig. 32). Smaller



Fig. 31. The Grand Lobby, with "Ladies' Corner" at center background. The designation of a special area for women was dropped around 1912.

Fig. 32. The Grand Parlor, a gathering place for guests



Fig. 33. A guest room being prepared for a new arrival

parlors, one for men and one for women, adjoined it. Along the corridor were the Sanitarium business offices and the men's medical offices. Along the hallway to the right (south) of the lobby were the

women's medical offices and specialty offices. Guest rooms were located on floors two through five. Rooms were lighted with electricity, and at least half of them had private bathrooms with "solid porcelain tubs, lavatories, and the most improved toilet arrangements."⁵⁰ Hot and cold running water were always available. Rooms without private baths were equipped with washstands. Each room had a veneered dresser with a large mirror, writing table, and closet. Brass rather than wood beds were used because they were considered more sanitary; and there were no large cotton or wool carpets because it was thought that dust and bits of lint from them might irritate the lungs or harbor germs (fig. 33). Instead, Sanitarium rooms were furnished with rugs that could be easily removed for thorough cleaning.

Kellogg was especially proud of the telephone exchange (fig. 34). Through it, "patients may be connected with any room,

night or day, with the management, or with their physicians. By the long-distance telephone, a businessman at the Sanitarium can easily connect with Boston, New York, Chicago, St. Louis, Omaha, St. Paul, New Orleans, San Antonio, Washington, and all principal intervening points.”⁵¹

A dining room that could seat as many as eight hundred persons was on the sixth floor. Several small paintings adorned the lower edge of the vaulted ceiling, and the room was flooded with light from many windows. A promenade on the roof was a before-dinner tradition, and guests marched to their official song, “The Battle Creek Sanitarium March” (fig. 35) described as a “lively two-step.”⁵² The kitchen (fig. 36) was located on the north side of the dining room.

The amount of food consumed at the Sanitarium during a year gives a good indi-

cation of how busy the kitchen and dining room were. In 1910, guests consumed 19,174 gallons of milk, 27,928 gallons of cream, 41,319 dozen eggs, 40,282 loaves of bread, 51,206 pounds of butter, 1,600 barrels of apples, 6,000 bushels of potatoes, 1,249 cases of oranges, 1,429 bunches of bananas, and 434 cases of grapefruit. By 1921, the consumption had increased significantly. For example, 63,816 dozen eggs and 130,814 loaves of bread were used.⁵³

A new hospital was not built, but a surgical area was constructed on the sixth floor, completely separated by solid walls from the dining room and the kitchen. The aseptic maternity was moved into a house that was once the home of James and Ellen White.

The new Sanitarium was largely a self-contained institution (fig. 37). Much of the

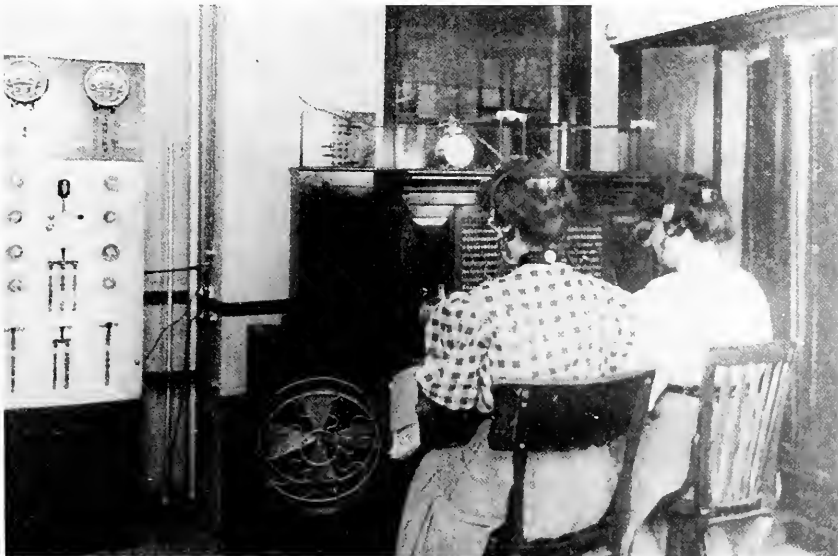


Fig. 34. The Sanitarium switchboard, 1903



Fig. 35. The roof promenade

Fig. 36. The Sanitarium kitchen



food was either grown in on-site greenhouses or purchased under contract from farms approved by Kellogg. Milk was processed at the Sanitarium's own dairy plant. Laundry facilities were modern (figs. 38, 39), and each day the sixty-five employees handled at least 26,000 pieces, including 2,300 towels, more than 2,000 sheets, 165 tablecloths, and 1,400 napkins.⁵⁴

Each January, fifteen hundred tons of ice were harvested from Lake Goguwac and were hauled in great wagon caravans to the Sanitarium (fig. 40). The Sanitarium was thus supplied with ice for a year—until 1912, when ice-making equipment was purchased.⁵⁵

The new Sanitarium continued to provide care for those unable to meet the normal costs of treatment. After 1903, East Hall, the building that served as the Sanitarium immediately after the fire, became a charity hospital for those who

could not afford the normal hospital charges. Sanitarium doctors staffed a clinic and dispensary, providing typical treatments to 120 families by 1910. Sanitarium doctors and nurses also visited the sick, providing home treatments, special foods, and clothing where necessary. Baskets of food left over from the daily fare of the Sanitarium were assembled and distributed to the needy by the clinic every afternoon.⁵⁶

Although the new Sanitarium flourished, the years following its opening were not administratively smooth. The rift between Kellogg and Adventists who agreed with Ellen White escalated when statements made by Kellogg suggested that his religious views were leaning away from Adventist teaching. A controversy also developed over debts incurred by the Medical Missionary and Benevolent Association. As a consequence, Kellogg forced the Association into bankruptcy, bringing it to an end. Those events led to Kellogg's dismissal from the church in 1907.

Kellogg's detractors tried to wrestle control of the Sanitarium from him, and a power struggle ensued. According to the Sanitarium trustees, several members of the opposition repeatedly attempted to "convert [the Sanitarium] into an instrument for the furtherance of the ends and purposes of a certain sectarian organization," and went on to express their belief:

This opposition and its purpose were clearly shown in the determined attempt made by the opposing members of the Association to injure the standing of the trustees, to undermine the financial credit of the institution, to embarrass and hinder the Board of Trustees in their efforts to repair the damage done by the disastrous fire of 1902, all with the evident object of compelling sub-

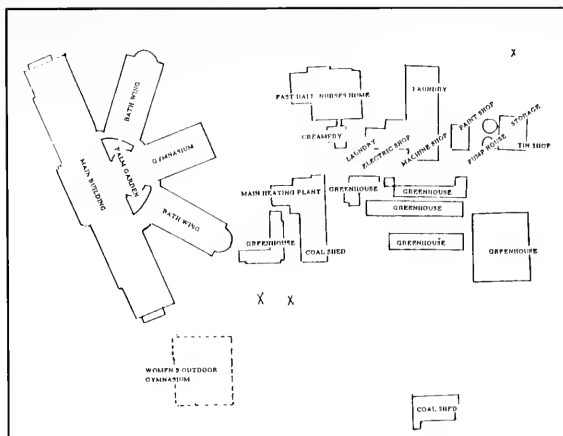


Fig. 37. Diagrams of the grounds and buildings of the Battle Creek Sanitarium

mission to sectarian control and influence, in direct opposition to one of the most clearly defined "principles of the work" of the Association.⁵⁷

To end the opposition, the trustees put plans in motion in 1911 to purge the membership of those who were antagonistic to Kellogg. Over the next two years, the board succeeded in ridding the Sanitarium Association of members who were either inactive or who had demonstrated that they were "not only out of harmony and sympathy with the principles of the Association but antagonistic thereto."⁵⁸ Grounds for dismissal on both counts had been fortuitously made part of the articles of incorporation.

During the same period, tax problems with the State of Michigan escalated. The state had backed away from its efforts to rescind tax exemption after the fire, but in 1905 the issue was raised again and the tax-exempt status was rescinded. That was the beginning of a five-year struggle between state authorities and John Harvey Kellogg. Kellogg refused to pay the taxes,



Figs. 38 and 39. Scenes from the Sanitarium laundry, ca. 1910



Fig. 40. The annual ice caravan makes its way to the Sanitarium.

and in January of 1910, the Michigan Attorney General filed a motion in the circuit court at Jackson to have the Sanitarium management ousted and the institution placed in receivership on the grounds that the Sanitarium was violating its status as a charitable institution. Before

that could happen, however, the Sanitarium agreed to pay one quarter of the \$100,000 the state said was owed in back taxes with the understanding that, in the future, taxes would be paid on related Sanitarium properties and businesses, but not on the Sanitarium itself.⁵⁹



Fig. 41. Breathing exercises



Part 3

The Treatment

When Kellogg took over the Institute in 1876, the basic treatment plan was in place: a low-meat or nonmeat diet rich in fruits, vegetables, and grains; abstinence from alcohol and tobacco; as much fresh air and sunshine as possible; loose-fitting clothing; the use of electricity to stimulate the body and muscles; exercise; and water therapy. Kellogg did not vary from that regimen in the ensuing years, although he added massage as a form of exercise and broadened the advantages of sunshine by introducing therapeutic heat in other forms. He also worked toward making the Battle Creek treatments “scientific,” by which he meant treatment based on careful experimental and physiological study and treatment that could, ideally, be quantified.

Although the treatment remained basically the same, Kellogg made a significant addition to his understanding of the causes of illness in the 1890s. Prior to 1890, he attributed illness to such things as impure air, improper food, general debility, poor blood, muscle weakness, and the use of alcohol, tobacco, and other stimulants. Kellogg thought that illness stemmed from poison in the blood that could be caused by impure air and water. Diet, exercise (fig. 41), and other healthy measures assisted the body in removing the poisons and also improved the general constitution of the individual so that he or she could better resist illness. When the medical community established the fact that many diseases were caused by microorganisms, or germs, Kellogg added germs to his list of causes, at least insofar as they contributed to impure water, air, and general living conditions.

Between 1890 and 1898 Kellogg adopted an additional explanation for illness,



Fig. 42.



Fig. 43.



Fig. 44.



Fig. 45.

Figs. 42, 43, 44, 45. All Sanitarium patients received a thorough physical examination.

one that became more important to him than all the others—the theory of “Autointoxication.” Kellogg believed that the theory provided a scientific explanation for most chronic illness, for the tenets of health reform, and for the success of the Battle Creek Idea.⁶⁰

Autointoxication

According to the theory of autointoxication, the human body constantly produced toxins (poisons) that were normally eliminated through the action of the liver and kidneys. When the intestines (particularly the lower part of the large intestine called the colon) became sluggish or stopped working altogether (a condition referred to as stasis), the result was constipation. Because the food residue laid in the colon for much too long, an extraordinary level of toxicity was built up in the body, causing everything from headache and drowsiness to cancer, diabetes, gallstones, neurasthenia, arthritis, and tuberculosis.⁶¹

Many things were believed to contribute to or cause stasis. Internal organs that fell downward (putting pressure on the intestines), poor diet, and a weakened colon were among them. Treatments included change in diet, the use of enemas and laxatives to remove material from the colon, and supporters to hold organs in place. Several surgeons advocated the removal of the entire colon!

Kellogg recommended supporters, reinforced the necessity of doing away with tight clothes since they could contribute to the displacement of organs, recommended enemas and laxatives in many cases, advocated exercise to strengthen abdominal muscles, and championed a less radical form of surgery in extreme cases. He was

convinced, however, that diet was the principle culprit, particularly animal products.

Because it was difficult to digest, meat tended to cause stasis. Further, because animals were raised in dirty surroundings, meat and other animal products such as milk were filled with putrefactive bacteria. The combination of the bacteria and the stasis led to an overwhelming release of toxins and to autointoxication. A carefully structured diet, free of meat and milk, would, he believed, have two effects: it would lower or eliminate the presence of putrefactive bacteria and it would cause the food to move quickly through the system, lowering the possibility for a build-up of toxins.⁶²

The idea of autointoxication closely supported reformers’ theories that poor food led to illness. A regular diet structure to combat autointoxication became the most important aspect of treatment at the Sanitarium. Yet the replacement of a poor diet with a good one was not always successful by itself. Years of mistreating the digestive system, Kellogg argued, so damaged its natural abilities to eliminate material from the body that additional measures were required to restore its effectiveness. Exercise was important in strengthening the abdominal muscles to prevent organs from falling, and the whole Sanitarium regimen of exercise, fresh air, water, and other therapies became an essential means of preventing stasis.

When a patient came to the Sanitarium in 1888 (before autointoxication), the stay began with a thorough physical examination, usually done the day after arrival. On the basis of that examination, the physician prepared a regimen of diet, exercise, and other treatments, all of which were

Fig. 46. An important aspect of diagnosing autointoxication was laboratory analysis of body wastes.



closely supervised by the physician and monitored and implemented by some of the several hundred persons employed as nurses or attendants at the Sanitarium, whose job it was to watch over the patient's welfare.

As Kellogg's ideas on autointoxication took hold, the first examination of the patient (figs. 42, 43, 44, 45) became more complex.⁶³ The most critical part of the evaluation was a three-day study of digestion, beginning on the second day of the stay. Its purpose was to determine how serious the autointoxication was. Body wastes were carefully collected and analyzed (fig. 46) in order to judge damage to the body and to determine the numbers of offending bacteria in the colon. Simultaneously, studies to measure the speed with which food passed through the system were done, for the more quickly the

food made its journey through the system, the less chance there was for serious autointoxication. The majority of patients were found to suffer from some degree of the ailment, and each was given a prescription for an appropriate diet (fig. 47) as well as a schedule of other treatments directed toward eliminating autointoxication and reversing its effect on the body.

Diet and Digestion

Kellogg developed many foods, including his nut-based products, as substitutes for meat and milk. Other foods, food products, and eating habits were developed or adopted to combat putrefaction in the intestines and to encourage the digestive system to resume normal functioning.

Yogurt and soy acidophilus milk were staples of the menu, intended to suppress the putrefactive bacteria in the colon and

replace them with "good" bacteria. Kellogg based his beliefs on the writings of Elie Metchnikoff, European scientist and devotee of the theory of autointoxication, who observed that Bulgarians lived a long and healthy life and consumed quantities of yogurt. Metchnikoff suggested that a lactic-acid-forming organism in the yogurt was responsible for Bulgarians' longevity because it reduced the number of putrefactive bacteria in the intestines. Metchnikoff called the organism the "Bulgarian bacillus." The soy-based milk contained a lactic-acid-generating bacillus similar to the one in yogurt, and it became a standard item on the Sanitarium menu after 1915.

Lacto-dextrin was another product intended to reduce the number of offending bacteria. It was mixture of lactose and dextrin flavored with lemon in powdered

form to be mixed with water as a refreshing drink. Guests could purchase most of the special products in a small shop (fig. 48) just outside the Palm Garden.



Fig. 47. Kellogg's dietary plans stressed fruits, grains, vegetables, and nut-based products.

Fig. 48. The food booth, located just outside the Palm Garden

Special Diets

The accompanying diet lists may be helpful to those who desire to regulate their bills of fare by scientific principles

ANTI-TOXIC DIETARY NO. 1

This dietary is designed for use in cases of intestinal auto-intoxication. Milk, eggs, meat, and animal fats, with the exception of sterilized butter, are excluded

GRAINS

Cereals	Others	Taro
DEXTRINIZED FOODS		
Ginseng	Cornmeal	
Toasted wheat flakes	Rice	
Toasted corn flakes	Breakfast toast	
Crushed wheat	Dry toast	
Toasted rice flakes	Infant food	
Raw wheat	Infant food	
Crushed rice	Infant food	
Crystal wheat	Infant food	

MALTED FOODS

Ginseng	Maltine	Malted nuts
PUREES, BROTHS, AND SOUPS		
Beans	Vegetable	Potato
Pea	Peasoup	Fruit
Lentil	Tomato	

SALADS

Potato	Fruit
FRESH FRUITS AND FRUIT JUICES	
Apple (mellow)	Pears
Banana (very ripe)	Melons
Peaches	
Grape juice	Blackberry juice
	Raspberry juice
	Sterilized butter in small amount

ANTI-TOXIC DIETARY NO. 2

This dietary is to be used in cases of intestinal auto-intoxication of moderate degree. In some severe cases it follows Anti-toxic Dietary Number One, after a certain degree of improvement has been secured

The same as No. 1 with the Addition of

Yogurt	Buttermilk	Cream
Buttermilk	Whipped cream	Yolks of eggs
Yogurt	Whipped cream	Sterilized butter

ANTI-TOXIC DIETARY NO. 3

THE SANITARIUM MENU EXCEPT

Raw vegetables, as coleslaw	Ice
Large cake, jelly, etc.	Drinks at meals
Vegetable soups	Cake sugar
Flour	
Reject fibre of coarse vegetables and fruits	

SPECIAL ANTI-TOXIC DIET

This dietary is especially designed for cases in which intense intestinal auto-intoxication exists and a rapid clearing of the intestine from putrefactive bacteria is necessary. This regimen is more effective than fasting, and more quickly clears the tongue.

Prune juice	Fruit Juices	Melons
Blackberry toast (300 calories daily)		Cocoa

Articles Which Must Always be Avoided in Cases of Intestinal Auto-intoxication

The entire Sanitarium bill of fare might well be designated as "anti-toxic dietary." A person who has once suffered from this disease must forever abstain from the articles mentioned below so as to be avoided.

Fig. 49. In 1921, Kellogg demonstrated the cleanliness of his dairy barns by holding this dinner for local Rotarians.



Kellogg removed milk from the Sanitarium menu when he adopted autointoxication, but he reintroduced it several years later because he became convinced that milk could be safe if dairy cattle were raised in absolutely clean quarters. (A dramatic demonstration of how clean a dairy barn can be is seen in fig. 49.) Kellogg took care to see that the milk processed at the Sanitarium maintained a germ count that was within an acceptable range.⁶⁴

Kellogg insisted that food had to move rapidly and regularly through the system, with at least three bowel movements per day.⁶⁵ Thus, little residue would remain in the colon to lead to autointoxication. Regularity could be achieved by the right diet, appropriate exercises, and the use of such high-fiber foods as bran (fig. 50). If the colon was weakened by years of mistreatment and constipation, however, Kellogg prescribed additional measures to encourage elimination, including such lubricants as mineral or paraffin oil (fig. 51). In cases of prolonged constipation, he

advocated the initial use of the enema to rid the bowel of its contents. Enemas or laxatives were recommended in order to make sure that there was no recurrence while a permanent cure was being forged through healthy living.

In looking for ways to aid the easy and rapid digestion of food, Kellogg embraced Fletcherism in 1902. Horace Fletcher gained prominence in the United States in the early twentieth century by advocating thorough mastication of food. Fletcher advocated chewing each morsel of food several hundred times, reducing it to a fully digestible liquid before swallowing. After meeting Fletcher, Kellogg began to encourage Sanitarium patients to "Fletcherize," thinking that such prolonged chewing would help assure that no bit of undigested food reached the colon, where it might rot. Kellogg constantly reminded guests to chew by posting signs in the dining area (fig. 52). He even introduced a "chewing song," the chorus of which was, "Chew, chew, chew" for it is "the right



Fig. 50. Kellogg's Bran was marketed as a cure for constipation. It was "ready to serve" from the box or could be used in mush, cookies, brownies, or bread.



Fig. 51. Some of the bulk-producing products and laxatives that were developed at the Sanitarium and sold by the Battle Creek Food Company



Fig. 52. The "Fletcherize" reminder was prominently displayed in the Sanitarium dining room.

Fig. 53. A typical day's schedule, as printed on the back of the day's menu. Everyone was expected to participate in the listed activities, and each guest also received a personal schedule of treatments.

PROGRAM FOR THE DAY	
Monday, February 22, 1915	
BULLETIN	
7:00 a. m.	Chest Gymnastics in Gymnasium.
7:20 a. m.	Morning Worship in the Parlor.
7:40 to 8:40 a. m.	BREAKFAST.
8:45 to 9:15 a. m.	Women's Special Class in Gymnasium.
9:15 to 9:45 a. m.	Gymnasium Drill and March for guests and patients.
9:45 to 10:30 a. m.	Corrective and Medical Gymnastics for men, followed by games under direction of Prof. Frank E. Miller.
12:30 to 2:00 p. m.	DINNER.
2:00 p. m.	Cooking Class in Domestic Science Rooms near Chapel. Guests invited.
3:00 to 4:00 p. m.	Medical Gymnastics for men and women in the Gymnasium.
4:00 p. m.	Health and Efficiency Lecture in the Parlor by Professor Miller.
6:00 to 6:45 p. m.	SUPPER.
6:45 to 7:30 p. m.	Indian Club Drill and March for guests and patients.
7:30 p. m.	Music by Orchestra.
8:00 p. m.	In the Parlor. Question Box by Dr. J. H. Kellogg.
Special Notices	
Mail deliveries—8:00 and 11:00 a. m., 3:00 and 5:00 p. m. Sunday 9:00 a. m. only.	
Mail collections—9:00 a. m., 12:30, 2:20, 4:30, 8:00 p. m. Sunday 4:00 p. m. only.	
Newspapers at Main Desk. Chicago, Detroit, New York, Philadelphia, Cincinnati, Cleveland, Dallas, News, etc. Ask the Clerk.	
Cafeteria Office open from 8:00 a. m. to 7:00 p. m. Sabbath excepted.	
Those wishing to join the walking parties and visit places of interest in Battle Creek meet guides in the lobby at 7:00 a. m., 9:30 a. m., 3:30 p. m. or 7:00 p. m.	
Free Circulating Library and Reading Room. Second Floor Parlor Main Building, open 8:00 a. m. to 9:00 p. m. daily. Second Floor Calves Building, open 8:00 a. m. to 9:00 p. m. daily except Saturday; Saturday 2:00 to 9:00 p. m.	
Special Instruction in Medical Gymnastics by appointment with Physical Director.	
No food to be taken from the Dining Room.	

thing to do." It also warned that "You may smile when you chew, but don't try to talk too, for perhaps you will choke, and be sorry that you spoke."⁶⁶ The problem with Fletcherism was that few people had the endurance (or the strength of jaw) to spend the required hours to eat each meal. In time, Kellogg was content to recommend that food simply be chewed about four times longer than normal.

Before 1890, the scientific determination of food values was in its infancy; but as information became available about such things as calories, proteins, fats, and carbohydrates, Kellogg incorporated each concept into the process of selecting foods for each diet.

In addition, foods and menus were constantly evaluated in the Sanitarium kitchens and laboratories. Kellogg also established the Pavlov Institute in the early twentieth century for the scientific study of food. Institute studies focused on the way that different foods affected the produc-

tion of digestive juice. The studies may have contributed to the introduction of one of the most popular Sanitarium food products, Savita, a yeast extract that gave the flavor of meat to food. Kellogg argued that the product stimulated the production of digestive juice, thus aiding the complete digestion of food.

Exercise and Muscle Stimulation

Health reformers considered exercise a powerful agent in the fight to be healthy. Lack of exercise led to poor general health and to several specific ailments that were the result of muscular weakness. Kellogg, for example, attributed such diverse conditions as round shoulders, poor circulation, curvature of the spine, and autointoxication to poor muscle tone and strength. Flaccid muscles and poor posture were as likely to be the cause of falling organs as tight clothing, while strong muscles would not only keep the organs in place but encourage the intestines to work properly as well. Because of its importance, exercise filled many hours of the patient's day (fig. 53).

The importance of exercise was epitomized in the gymnasium of the 1903 building. At 66' x 120', the gymnasium was almost twice as large as its forerunner. Unlike the earlier facility, it was never used for any other purpose. Located between the two treatment wings, it offered rowing machines, weight-pulling apparatus, lifting machines, swings, and other devices intended to improve physical condition and muscle strength. A running track (fig. 54) circled the upper part of the facility.

In order to determine the extent of muscle weakness and quantify muscular development, Kellogg invented a Universal Dynamometer (fig. 55) in 1883, after nearly ten years of study. With it, the strength of

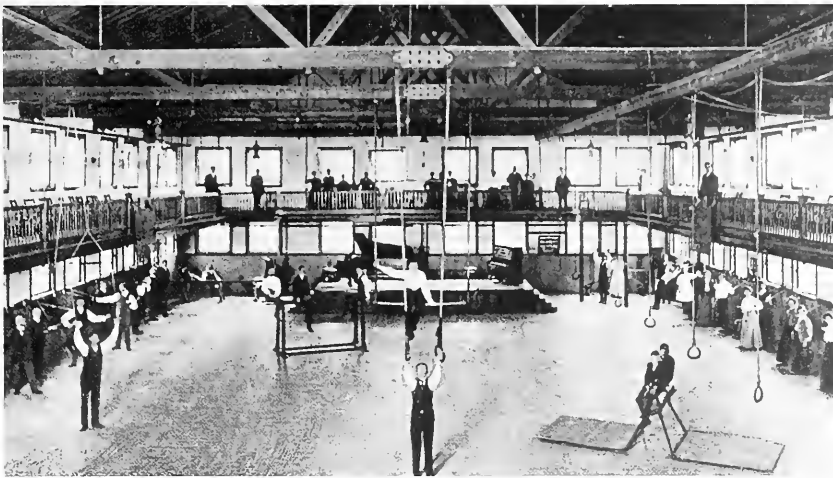


Fig. 54. The Gymnasium in the 1903 building featured an upper-level running track.

all the major muscle groups could be measured and appropriate exercises prescribed. Improvement in the strength of the individual muscles and in total strength was carefully plotted on charts so that the patient and physician could determine progress.

One of the most highly valued parts of the exercise program was the "movement-cure." Movement-cure was based on concepts introduced in the early nineteenth century by Peter Henrik Ling of Sweden (hence, the exercises were sometimes called Swedish Movements). The movement-cure found a ready audience among some of the early proponents of health reform in the United States. Trall, for example, was teaching it at his Hygeio-Therapeutic College when Kellogg was a student, and it was in use at the Institute before Kellogg joined the staff.

The goal of movement-cure was to provide relief from physical problems through carefully planned and monitored muscle exercise that occurred as resistance was exerted in opposition to the patient's efforts to move. The exercises developed by Ling relied on the presence of an attendant who



Fig. 55. Kellogg's Universal Dynamometer measured the strength of all the major muscle groups.

acted as a counterforce or resistance to the patient's efforts (fig. 56). Ling emphasized preciseness in his program, taking care to see that exercises were done in accordance with carefully developed procedures and rules. Thus, Kellogg viewed them as scientific.

Stimulation of the muscles and organs through massage and vibration were also advocated by Ling as a form of exercise.

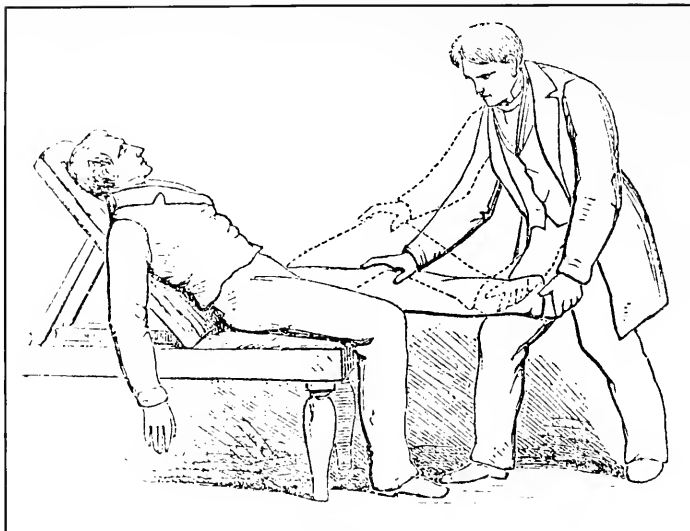


Fig. 56. One of the exercises developed by Peter Henrik Ling

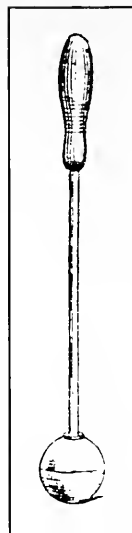
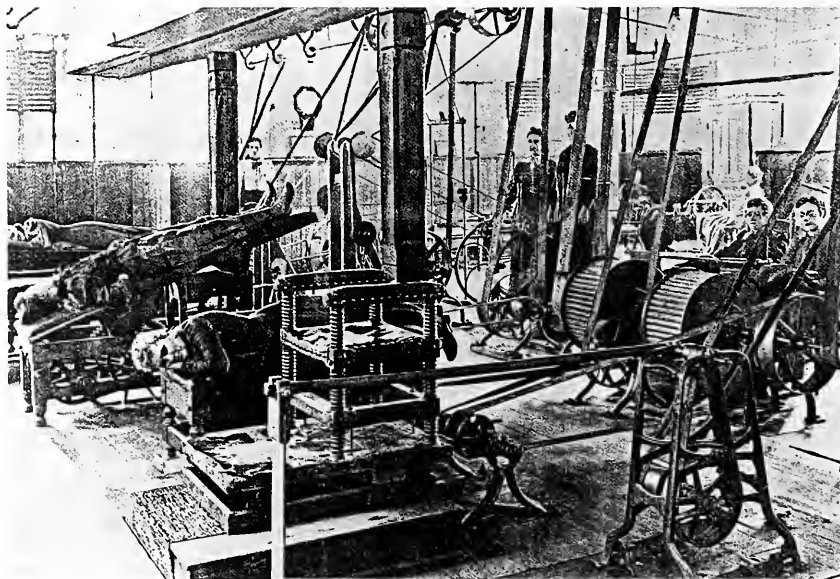


Fig. 57. The Ball Muscle Beater, invented by Kellogg for percussion

Fig. 58. The Mechanical Movement Room, about 1890



Vibratory movement could be imparted by an attendant's hand or by a hand-held vibrator. Percussion, a form of massage used to stimulate circulation, was performed by tapping or clapping patients with the hands or with an instrument devised for the purpose (fig. 57). Kellogg considered abdominal massage particularly important as a means of stimulating the bowel to action in cases of autointoxication.

Movement-cure, massage, vibration, and other forms of exercise were very labor intensive for the attendants, who did most of the work from which the patient benefitted, and it was tiring for the attendant. While on a tour of Europe in 1883, Kellogg found a suitable alternative for administering many treatments. In Sweden he was impressed with the steam-driven machines that administered Ling's treatments. The machines, developed by Gustav Zander, did the work of attendants, both in providing resistance and in administering massage or vibration.⁶⁷

Kellogg may have seen similar Swedish machines at the 1875 Centennial Exposition in Philadelphia, because a few of them from Sweden were exhibited there. If he saw them, however, it apparently did not occur to him to use them until the 1883 visit to Sweden. When he returned to Battle Creek, Kellogg had a number of machines based on Zander's equipment made, and a mechanical movement room (fig. 58) was set up beneath the gymnasium.⁶⁸ A similar room with updated equipment was an integral part of the 1903 building.

Equipment in the mechanical movement room included a vibrating belt and chair. The vibrating belt was intended to aid flabby muscles, nervousness, constipation, circulation, obesity, rheumatism, and many

other disorders (fig. 59). The vibrating chair—on which the patient could sit, stand at the back holding onto the cross bars, or sit in an adjacent chair and receive stimulation through the footrests (figs. 60, 61)—was exhibited at the Columbian Exposition. It was one of the most popular attractions because it offered relief for tired, aching feet.

Whirling straps massaged and vibrated the body. The user could control the impact by reducing or increasing the speed of the straps and by moving closer to or away from the pillar (fig. 62). A mechanical horse (fig. 63) offered all the benefits of horseback riding.⁶⁹ Kellogg thought that the motion of the horse was especially good in stimulating intestinal activity, and for patients who could not ride real horses, it was the perfect solution. Machines for massaging and vibrating the colon were essential to Kellogg's principles (fig. 64). In spite of the mechanization of many treatments, however, medical gymnastics using an attendant never disappeared entirely from the Sanitarium.⁷⁰

Although building expansion meant that much of the exercise program could be carried on indoors year-round, Kellogg encouraged patients to exercise outdoors as much as possible. Walking, horseback riding, swimming, Indian clubs, and skiing were encouraged (figs. 65, 66). Breathing exercises were done daily to invigorate and strengthen the system.

Kellogg developed an interest in posture and its relationship to health. He believed that poor posture was the result of weak muscles and that it was an intermediate cause of displaced organs. To help diagnose poor posture, Kellogg introduced the Shadowgraph in the late nineteenth century, a device that projected a shadow of the



Fig. 59. The vibrating belt, ca. 1910



Fig. 60. A group of vibrating chairs

Fig. 61. This chair provided vibration to the feet.

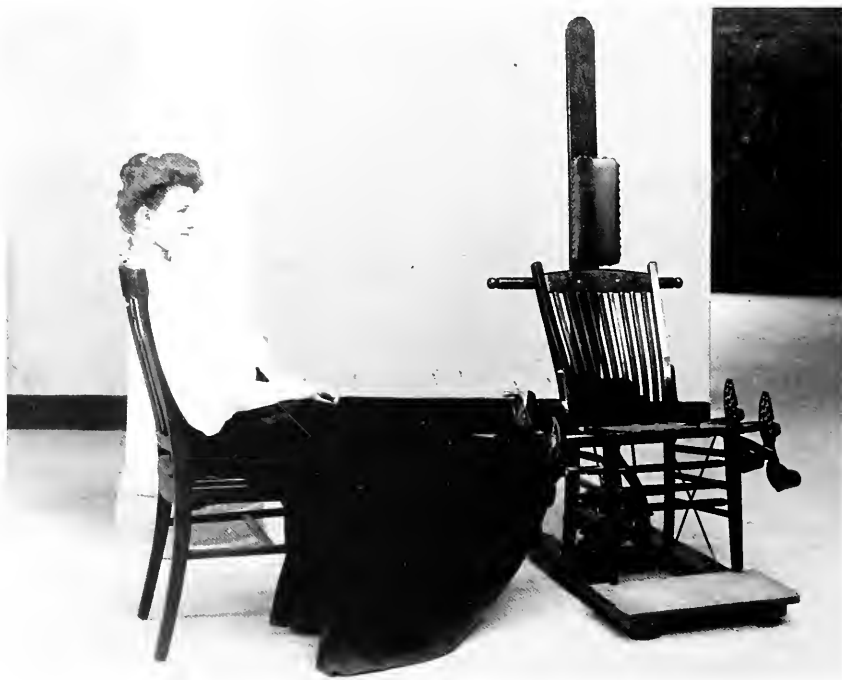




Fig. 62. One of many varieties of massage or vibration offered at the Sanitarium

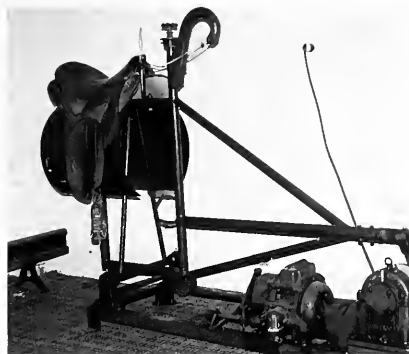


Fig. 63. The Battle Creek Mechanical Horse

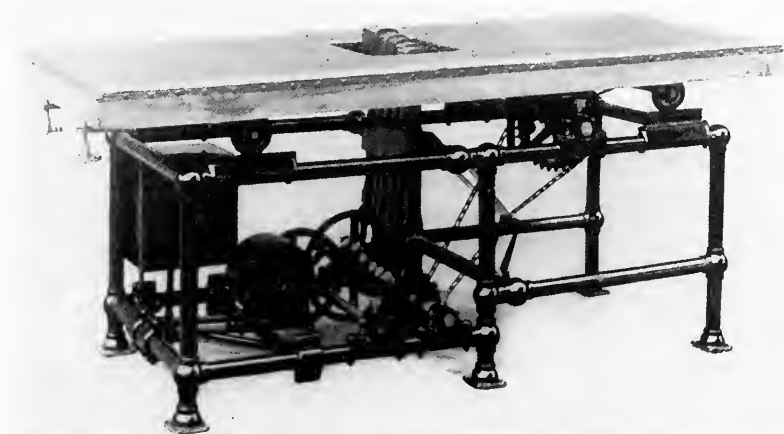


Fig. 64. An abdomen-kneading machine

Fig. 65. A
walking party

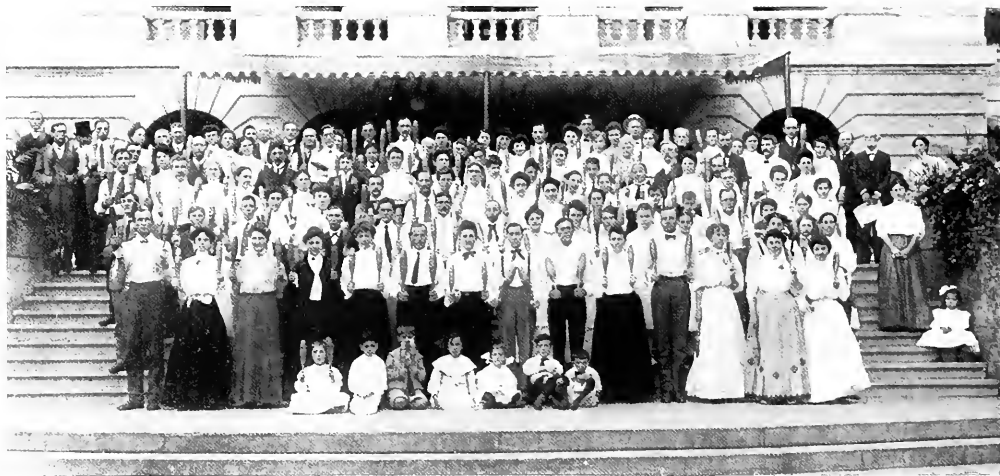


Fig. 66. Members of an exercise class pose with Indian clubs on the front terrace.



*Fig. 67.
Improved
posture and
mental and
physical
dexterity were
the goals of
sloyd.*

body on a muslin cloth.⁷¹ The shadow revealed any deviation from what he considered good posture, and exercises were prescribed to correct the deviation. In addition to exercises for posture, Kellogg devised a special posture chair featuring a convex back that not only offered support but forced the person to sit up straight. The posture chair was used throughout the Sanitarium, including patient rooms and the dining room.

Shortly after 1903, Kellogg introduced sloyd to the Sanitarium. Sloyd was developed in the Scandinavian countries as a means of improving mental and physical dexterity while learning a manual trade, often woodworking. Kellogg believed that the work, performed while standing and using tools (fig. 67), was a useful means of improving posture and strengthening the muscles.

All patients were expected to follow the Battle Creek plan for health. If patients were bedridden and unable to come to the



*Fig. 68. Even
the bedridden
could engage in
approved
exercise.*

gymnasium or mechanical movement room, attendants assisted with prescribed exercises in the patient's room (fig. 68).

Kellogg was eager to make the value of exercise known and to teach proper methods of exercise outside the Sanitarium. He

Fig. 69. An electrotherapy device is prominently displayed in this 1888 photograph of Sanitarium helpers.



established companies such as the Sanitarium Equipment Company to sell Sanitarium exercise equipment. In 1923, he entered into an agreement with the Columbia Graphophone Company (forerunner of Columbia Records) to produce what may have been the earliest of the forerunners of the modern audio and video exercise tapes. The phonograph recordings were accompanied by the Battle Creek Sanitarium *Health Ladder*, a book that carefully described each exercise.⁷²

Electrotherapy

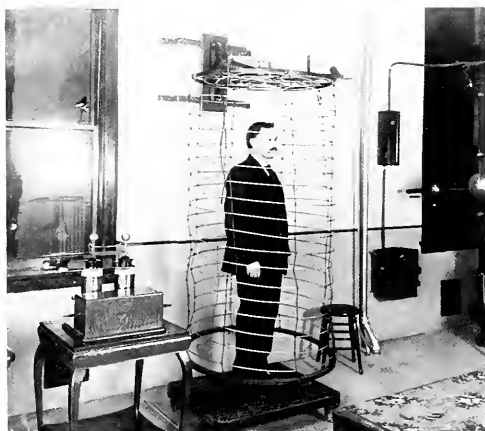
By the mid-nineteenth century, electrotherapy was enjoying great popularity in American hospitals and homes for a variety of purposes ranging from muscle stim-

ulation to the treatment of neurasthenia and uterine diseases.⁷³ Electrotherapy was popular with water-curists and had been offered at the Western Health Reform Institute. Because electricity was painless but produced vigorous muscle contraction, Kellogg thought that it was an excellent choice for the patient who could not actively exercise. It was also used to stimulate the colon (fig. 69).

The Sanitarium had several large static electric generators (fig. 70). Direct current and oscillating current were used in other devices (figs. 71, 72). In addition to applying electricity externally by direct contact with the skin through electrodes (as with the static generator) or by placing the patient within or near an electrical field, it



*Fig. 70.
Kellogg claimed
that this static
electric genera-
tor was the
largest ever
made.*



*Fig. 71. The rapidly oscillating electric field within this
coil generated a high-frequency electrical treatment.*

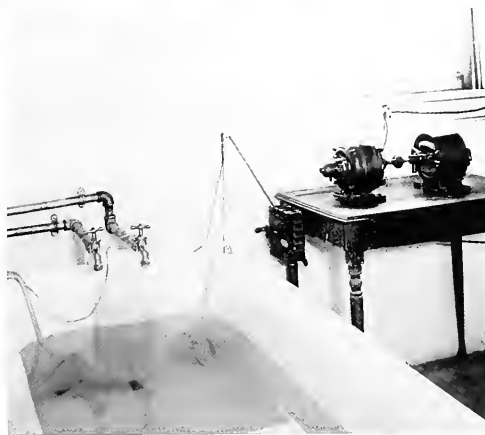


Fig. 72. Electrotherapy through water

Fig. 73. A nineteenth-century view of the Laboratory of Experimental Hydrotherapy

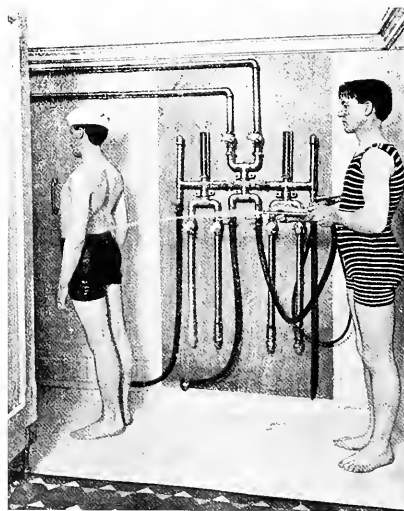


Fig. 74. The apparatus on the wall delivered water for a lumbar douche at various temperatures and intensities, varying from a pinpoint stream to a wide spray.



Fig. 75. A partial submersion bath

was sometimes applied through water, or applied internally by inserting electrodes into body openings. The method used depended on the problem to be treated. Current applied through water was often used as a general tonic or to aid in sleep, whereas electrodes introduced into the body were intended to stimulate the stomach and colon to natural activity.

Baths, Light, and Heat

For early water-curists, water had been, without doubt, the most essential treatment. By 1876, however, water cure, or hydropathy, had declined in popularity. Instead of the elaborate baths, sprays, and wet wraps that once characterized water cure, people were turning to waters that were laden with minerals supposed to provide special curative powers. Places like Saratoga Springs in New York, Warm Springs in Virginia, and French Lick Springs in Indiana had already become famous for their mineral waters, and for the next few decades would draw thousands of people annually seeking health by "taking the waters." Kellogg thought the use of mineral waters was irrational and unscientific, and he made a point of disavowing their significance, calling them "humbugs" that were "reaping a rich harvest of plunder from the deluded multitudes of chronic invalids who flock to them for relief."⁷⁴ He wanted his patients to continue to reap the benefit of *pure* water, but he also made it clear that water was not to be regarded as the most important treatment, as his predecessors had tended to do. He preferred to think of it as one of several valuable treatments offered at the Sanitarium.⁷⁵ As with the others, he was determined that the use of water would be scientific; while others referred to water cure as hydropathy, he called it

hydrotherapy in order to signify its scientific stature at the Sanitarium.

Kellogg had begun to study the effect of water on the body as early as 1875, and in the early 1890s he established the Laboratory of Experimental Hydrotherapy at the Sanitarium (fig. 73). His studies and those of others in the laboratory sought to determine how to treat every condition in terms of the way the water was delivered and for how long, and what the water temperature should be in each instance.

Each of the two treatment wings at the rear of the 1903 building contained bathing areas. The application of water to



Fig. 76. The surge, or rocking, bath was used as a tonic following other forms of water treatment.



Fig. 77. Wet wrap with shower

Fig. 78.
*Continuous
bath*



Fig. 79. *The
sand bath*



the body came in many different forms of which the following are some examples: single or multiple columns of water (called a douche or spray) directed against some part of the body (fig. 74), the cold plunge bath, the full or partial bath in which the

entire body or some part of it was immersed in water (fig. 75), the surge or rocking bath (fig. 76), the swimming bath, wet wraps (fig. 77), wet hand rubbing, and the sponge bath. Each general category had many variations, each with a specific

purpose and meaning for the health of the patient. There were more than forty kinds of douches and as many full or partial immersion baths. The lumbar douche (fig. 74) was thought to be helpful in the treatment of constipation, incontinence, and problems affecting the pelvic, visceral functions. One variation of the full bath was the continuous bath (fig. 78), which could last (with intermissions) for up to a year, although a shorter duration of a few hours or weeks was more typical.⁷⁶ Longer durations were used for severe fevers and for severe burns, among other things. Vigorous rubbing was an important part of many baths, and in 1908 Kellogg developed a rough mitten for attendants to use for rubbing. The patient's medical evaluation determined which of the baths, or what combination of baths, would be most beneficial.

Swimming was often combined with



Fig. 80. The air bath was usually used to cool the body after a heat bath.

exercise, and each wing of the 1903 building had a large swimming pool at one end of the main floor. The water was kept at a constant 78°, but a smaller pool adjoining the large one was kept at a temperature of 60°.⁷⁷ It served for the plunge baths, which were of very short duration.

The importance of warmth in many treatments led Kellogg to include other kinds of baths (as he called them) as part



Fig. 81. Two versions of the light bath. The one shown in the inset was sold for home use.

Fig. 82. Half
baker



Fig. 83. In
diathermy, a
high-frequency
alternating cur-
rent delivered
penetrating
warmth to a
specific part of
the body.



of the treatment. Among them were sand baths (fig. 79), dry air baths (fig. 80), oil baths, mud baths, sun baths, and—most popular of all—light baths.

Kellogg's attention was drawn to the use of electric lights as substitutes for the sun's heat around 1890. He subsequently developed many light baths, including the common incandescent light bath and the combination light-and-water bath. He introduced a light bath for the whole body (fig. 81) at the Columbian Exposition in 1893.⁷⁸ Light baths directed at a limited area of the body were called "bakers" (fig. 82).

Light baths were recommended for general stimulation, rheumatism, high blood pressure, and autointoxication, among other things. Although early light baths depended on incandescent bulbs, by the end of the century Kellogg was also using-carbon arc lights in the bath. That light produced a concentration of invisible ultraviolet radiation—which, as we know today, is the part of sunlight that causes sunburn and can cause severe damage to skin tissue. Kellogg, and many of his contemporaries, however, believed that the burning and tanning that resulted from exposure to ultraviolet light was beneficial. He especially believed that the burning stimulated the circulation of the blood, which hastened the elimination of toxins from the body.⁷⁹

Kellogg added diathermy to his heat treatments early in the twentieth century (fig. 83). Diathermy uses a very-high-frequency alternating current (in the range of radio frequencies) to raise the temperature of the tissues, bringing a penetrating warmth to the area of the body under treatment.

Other Treatments

Kellogg employed a variety of other treatments in specific cases. Surgery, which has already been discussed, was one such method of treatment. The few records that still exist suggest a wide range of surgical procedures, and Kellogg's procedure to relive statis was performed with some frequency. Gynecological surgery was also common.

X rays, which were introduced to the medical community in 1896, became an important part of the Sanitarium practice shortly thereafter, and an X-ray Department was incorporated into the 1903 building. Kellogg used X rays to determine if organs were out of their normal position, since that was an important indication of probable autointoxication. Kellogg also advocated using X rays in therapy, however, and was especially interested in their use to destroy internal tumors.⁸⁰

Radium, a radioactive element discovered in the late nineteenth century, became a popular medical cure soon thereafter. Direct exposure to radium and water impregnated with radium was used therapeutically for many illnesses, including arthritis, neuralgia, and gout. Kellogg introduced the use of radium at the Sanitarium around 1910, after visiting radium mines in Bohemia and studying its use in Europe. He called radium "the wizard of the chemical world."⁸¹ It is not clear how long it was in use at the Sanitarium, but the practice went out of vogue in medicine generally in the early 1920s, when it was discovered that such uncontrolled use of radium is extremely hazardous to health.

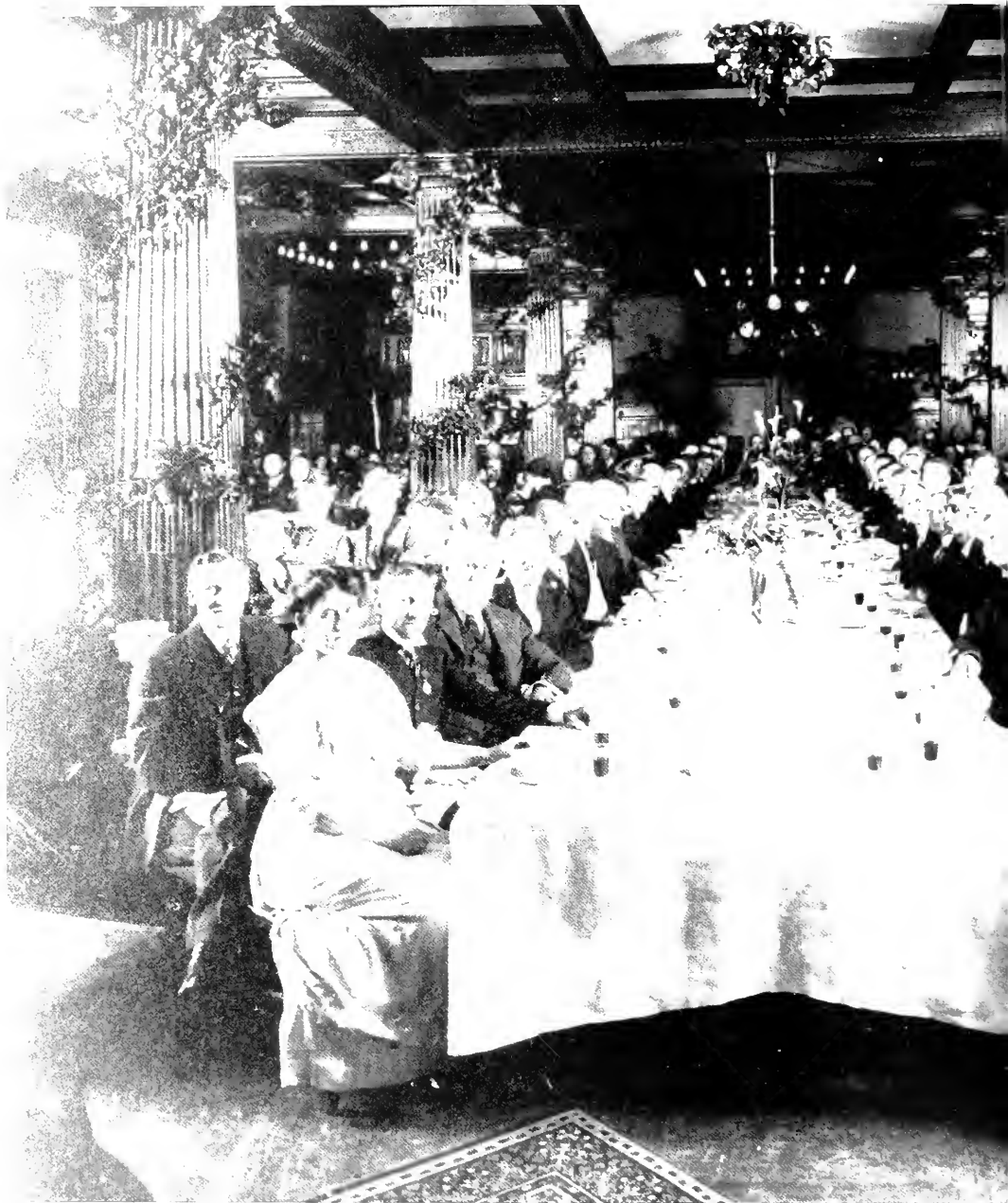


Fig. 84. Kellogg, standing in white suit, presides at a dinner in the Annex dining room.



Part 4

Never Enough Space

There was a steady flow of patients to Battle Creek from all over the United States and from other countries, as well—clerks and clothiers, attorneys and livestock dealers, students and brokers, and just about any other profession that can be named. They came for an average stay of about a month. At least one fourth were women, most of whom identified themselves as housewives.⁸² By 1912, the Sanitarium began to find itself in the position of having to turn people away, especially in the summer months. A \$225,000 addition to the south end of the building was contemplated but abandoned in favor of leasing an existing building in 1911, which was purchased for the Sanitarium in 1913.⁸³ Known as the Annex (figs. 84, 85), it had been built as a sanatorium by publisher Neil Phelps and his brother.

The Phelps saw potential in the concept of cereal as a healthy food, and they saw an opportunity to cash in on Kellogg's fame. Thus, they chose Battle Creek as the site for their Medical and Surgical Sanatorium. Many aspects of their program—including espousal of such things as meat and tobacco—were in total opposition to Kellogg's principles, however, and the brothers' ideas did not find a large audience. Within four years their sanatorium was bankrupt. In 1905, C. W. Post (who had decided that Battle Creek was the place to develop his own health cereal) bought the building and leased it to Bernarr Macfadden, a colorful and flamboyant entrepreneur who was well known for championing muscular strength as a key to health. Macfadden, however, eventually moved his operation to Chicago, and Post then made the building



Fig. 85. The Annex

available for the use of indigent and sick members of the Trades and Workers Association and their families.⁸⁴ When that venture failed, Kellogg acquired the building for Sanitarium purposes.

The Annex allowed the Sanitarium to dispose of several guest cottages and still provide additional space. Moreover, the building provided accommodations for "lady helpers," particularly the nurses. The Ladies' Dress Department (fig. 10), where guests were fitted with correct clothing, was also moved to the Annex.

Late in 1913, land was purchased for the construction of a separate hospital building. Financing proved to be more of a challenge than expected, and the plan was sacrificed in favor of buying a factory of the Sanitas Food Company in 1914, which was remodeled as a hospital (figs. 86, 87).

In 1914 Kellogg's Sanitarium hosted the first annual conference of the Race Betterment Foundation. Among the honored guests was the president of the American Medical Association. Kellogg was convinced that the human race was



deteriorating physically, mentally, and morally due to bad lifestyles that included poor diet, lack of exercise, consumption of alcohol, and use of tobacco. An exhibit at the 1915 San Francisco Panama-Pacific Exposition (which was also the site of the second national conference), proclaimed that the Race Betterment Foundation was a "Popular Non-Sectarian Movement to Advance Life Saving Knowledge." Kellogg believed that the deterioration of the human race could be reversed through a combination of his principles of healthy

living and eugenics (the selective mating of individuals to perpetuate desirable traits).⁸⁵ For Kellogg, the desirable traits were those reflecting health. Race betterment became so great a cause for Kellogg that in 1920 he rented Annex space to the Foundation offices.

Between 1920 and 1924, the Sanitarium averaged slightly more than nine thousand guests each year (fig. 88). At peak season, all housing facilities in Battle Creek were taken by Sanitarium patients. There were so many requests for reservations that a

Fig. 86. The new hospital building

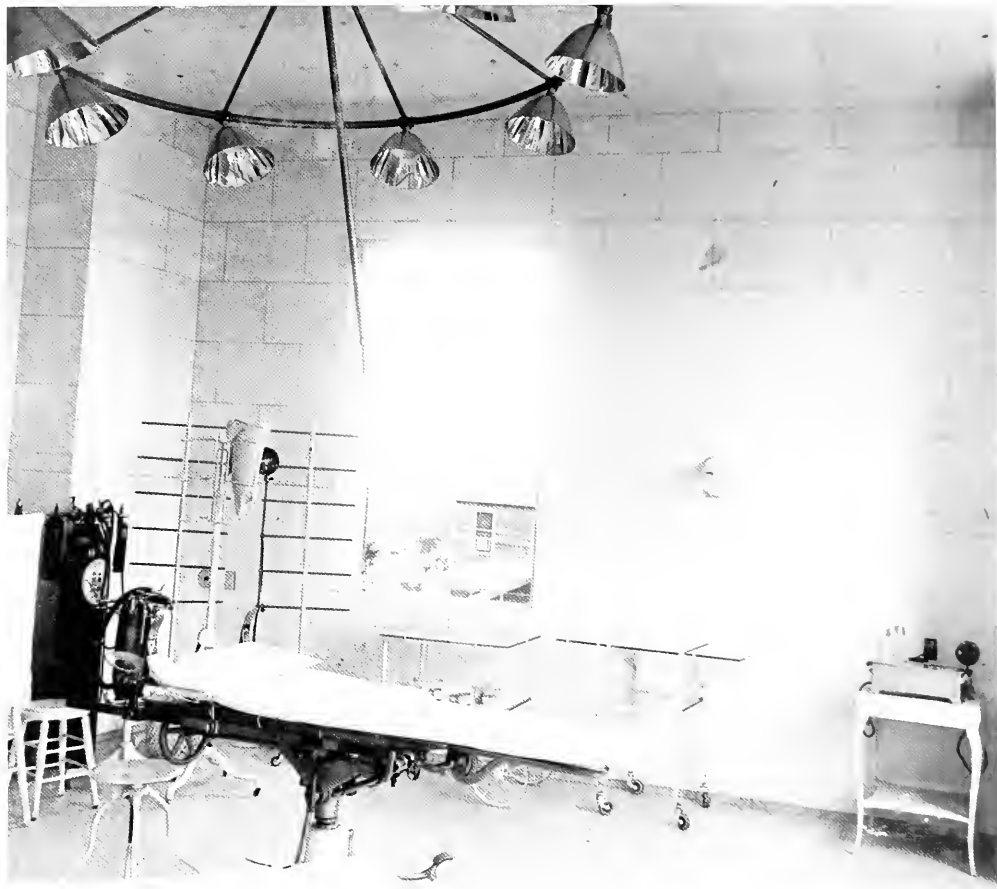


Fig. 87. An operating room in the Sanitarium hospital, ca. 1915, complete with the latest equipment. The surgical lights, which were designed to eliminate shadows, were appropriately called NOSHADO fixtures.

full-time person was hired simply to write letters of regret.⁸⁶ Without the full use of the Annex, more space was desperately needed.

Kellogg argued for a restrained approach to expansion because he was worried that the Sanitarium might overextend itself in spite of its popularity. Unfortunately, he was unable to assert his wishes.

Kellogg was not well. He suffered a pulmonary illness that forced him to spend several months in Florida each year. In his absence, Dr. Charles Stewart, vice-president of the board of trustees and a close associate of Kellogg's, took charge. In spite of Kellogg's concerns, the Sanitarium, under Stewart, entered a new phase of expansion.



Fig. 88. Horseback riding party in front of the Annex



Fig. 89. Artist's rendering of the 1928 Twin Towers addition (at right) to the Battle Creek Sanitarium

Part 5

A Moment of Glory, 1928 and After

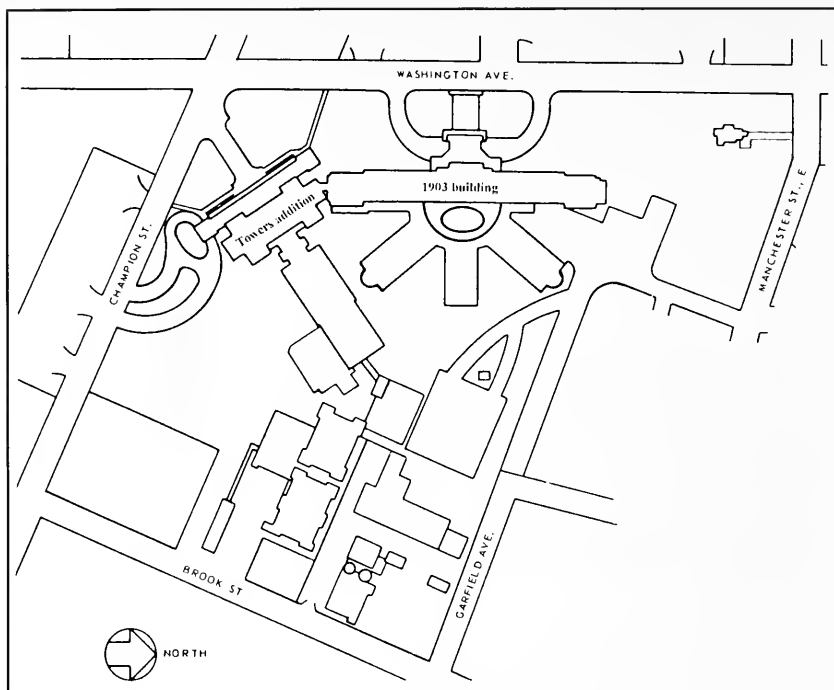
A fifteen-story twin-tower addition to the Sanitarium and a three-story dining facility opened to the public in 1928 (figs. 89, 90). The addition and its interior had a strong Italian Renaissance flavor, as had the 1903 building. Designed by Chicago architect Merritt J. Morehouse, the addition dominated—and continues to dominate—the Battle Creek skyline. Constructed of buff brick (to match the main building), it has sculptured concrete designs and copper roofing on the two towers. A thirty-two pillar colonnade, with copper-roofed pavilions at both ends, graces the front of the building.

On entering the new building, the guest was greeted with an opulent interior, designed and furnished by Marshall Field and Company of Chicago. The ornate lobby featured columns of white Mankato marble with gold-veined black Italian marble bases and gold-leafed Corinthian capitals rising two stories in height to an equally ornate sculptured ceiling of walnut ornamented with gold. Paintings of flowers in urns decorated the frieze. Below, the patterns of the carpet and upholstery were lavish, though muted, tending to the beige, brown, or dark peach and green. The Oriental rugs (fig. 91) were believed to be the first of their particular design exported to the United States. Two large gold, mirrored chandeliers, with eight smaller fixtures, provided a soft light for the lobby.⁸⁷

Two marble hallways led from the main area of the lobby to various offices. Their arched entryways featured handsome clocks. At the rear of the lobby, ladies' and



Fig. 90.
Sanitarium
grounds with
the new
addition



men's parlors (fig. 92) were found at the end of elegant hallways. A thickly carpeted mezzanine surrounded the two-story lobby and provided direct access to the new dining room, which measured 170' x 50' and could comfortably seat between seven hundred and one thousand persons.

The dining area (fig. 93) matched the grandeur of the lobby. The windows were draped in Belgian velvet, variously described as peach or apricot in color, crewel-embroidered with gold and hung over antique green taffeta. The walls were decorated with twenty-four handpainted Oriental murals, each unique. The food served here was plentiful and inviting but adhered to the dietary principles of the Battle Creek Idea.

Chairs and tables were of solid walnut, and each chair was a posture chair. Twelve

pedestals, arranged down the middle of the room and around the perimeter, held urns of white terra-cotta, each with a palm. The pedestals were walnut and gold, topped with black Italian marble. The room was lighted with indirect cove lighting and eight solid bronze chandeliers, each with one hundred lights. The center of the room was dominated by a seventeen-foot fountain. Its wooden base was made in New York, but the fountain proper was brought from Naples. Flowerboxes with concealed colored lights surrounded the fountain, and large blue-green terra-cotta frogs adorned the edges. When the fountain was turned on for the first time, it sprayed the room with water and was thereafter seldom used.⁸⁸

Food was prepared in huge, immaculate kitchens beneath the dining room.



Fig. 91. The lobby



Fig. 92. The men's parlor at the southeast end of the hall-way featured old oak beams. A fresco frieze surrounded the room, and the windows had coverings of red damask.





*Fig. 93. The
Towers dining
room*

*Fig. 94. The
Grand March*



According to Sanitarium officials, “no expense has been spared in securing every device that will insure perfect dining service in every detail.”⁸⁹ A special area for children adjoined the main dining room. Children of guests were not permitted to eat in the main room, nor were they expected to adhere to any special diet beyond the foods approved for general use in the Sanitarium.

The red-tiled Sun Garden topped the dining room, and the pre-dinner Grand March, or promenade, continued (fig. 94). The towers boasted the finest accommodations available, able to rival the best hotel. Each of the 268 guest rooms had a private bath, and many featured a fresh-air sleeping alcove. Each of the twelve floors used for guest rooms had treatment facilities, and a few of the larger suites had adjoining private treatment facilities (fig. 95). Each room had automatic heat controls, “washed-air” ventilation, running ice water purified by ozone, and special window glass that admitted the ultraviolet light that Kellogg thought were so useful. Sanitarium treatment and activities remained very much as they had been, although machines

and equipment were constantly updated.

Of the four-million-dollar debt incurred during the expansion, one million was quickly retired. In early 1929 the outlook for the Sanitarium was bright, but no one had foreseen the coming great economic crash. The Depression sounded the death knell for the Battle Creek Sanitarium. By 1930, the institution that could care for nearly fourteen hundred patients had a mere three hundred.⁹⁰ Interest accruing on the remaining debt was almost \$500 a day. With no hope that income from paying guests could meet the financial obligation, the administration cut wages and reduced staff.

Stewart suggested selling the Sanitarium to the Seventh-day Adventist General Council. Kellogg, who remained the titular head of the Sanitarium Association but whose power had never been fully reasserted, objected vehemently. Nevertheless, the plan might have worked except that the General Council was experiencing its own financial problems and could not, realistically, assume the Sanitarium debt.

The Sanitarium went into receivership early in 1933 but continued operation. As

the Depression waned, attendance picked up. During 1935, for example, nearly five thousand patients visited the Sanitarium. The Sanitarium was reorganized in 1938 under a board whose membership included underwriters who had assumed some of the debt and representatives of the original holders of the debt and members of the Sanitarium Association (including Kellogg). The eighty-six-year-old Kellogg was named medical director and president, but he had little power. He tried desperately to buy up Sanitarium bonds in order to gain more control but was unable to do so. He had opened a sanitarium in Miami (called Miami Battle Creek) in 1931 (fig. 96), and the expenses of that facility stressed his ability to purchase the Battle Creek bonds.⁹¹

The Sanitarium continued to struggle with reorganization, and Kellogg contin-

ued to try to gain control. All efforts failed, and in 1942 both the 1903 building and the towers addition were sold to the federal government for \$2,251,100.⁹²

The Final Reorganization

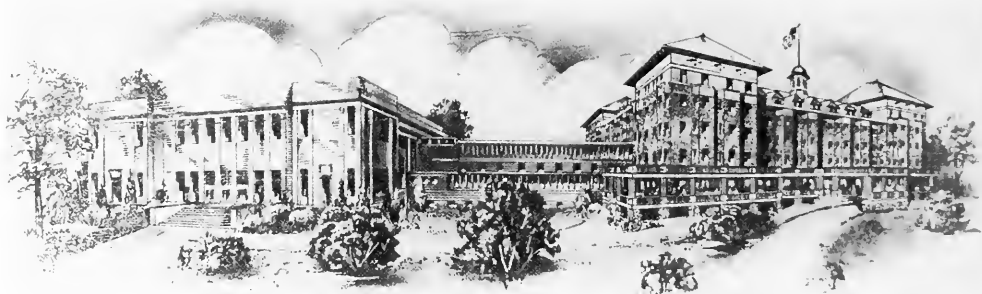
The 1942 sale allowed the Sanitarium



*Fig. 95.
Towers accom-
modations*



*Fig. 96. Miami
Battle Creek*



The BATTLE CREEK SANITARIUM • BATTLE CREEK, MICHIGAN

Fig. 97. After the sale of the main buildings, Kellogg relocated Sanitarium activities to the Annex and a building on the former campus of Battle Creek College.

Association to retire the remaining debt and left a considerable profit. At about the same time, Kellogg's Battle Creek Sanitarium Health Food Company was dissolved and its cash was transferred to the Sanitarium Association. Thus, its trustees had nearly a million dollars in unencumbered cash assets. Kellogg, as president, was once more able to assume control.

He moved the Sanitarium's principal operations to the Annex and to a building that had served as a library on the Battle Creek College campus. A wooden corridor was constructed to connect the two buildings (fig. 97) and to provide space for the Race Betterment Foundation. With the Sanitarium in new quarters and Kellogg once again the principal person shaping its work and direction, the future looked reasonably good.

Meanwhile, however, some Adventist members of the Sanitarium Association, convinced that funds netted from the sale of the building rightfully belonged to the Seventh-day Adventist General Council, were so unhappy that they started a movement to oust Kellogg. Kellogg succeeded in blocking the move, but on December 14, 1943, he died at the age of ninety-one, leaving the future of the Sanitarium uncertain.

Two years of litigation followed, the

Adventists contending that a portion of the funds of the Sanitarium belonged to them. A mutually agreeable settlement was reached in 1945, when approximately half of the sum realized from the sale went to the General Council and the Sanitarium was placed under the control of an independent, self-perpetuating board.

In spite of ensuing efforts to revitalize the Sanitarium, its methods no longer found many followers. In a desperate struggle to attract patients, the staff reintroduced meat to the menu for a short time in 1956.⁹³ Failing to succeed with such attempts, the Sanitarium once again went into receivership in 1957, after which a group of Seventh-day Adventist physicians took over operation of the Sanitarium. Shortly thereafter, a mental health unit was added and, in 1959, the Sanitarium was renamed the Battle Creek Health Center.

In the mid-1960s, an alcoholism rehabilitation program was added and the name was changed back to the Battle Creek Sanitarium. In 1970, a new hospital building was constructed. Over the next two years, the activities of the old Sanitarium were phased out, and the new hospital became an acute-care facility for drug- and alcohol-related problems. In 1974, the hospital came under the direct control of the

Seventh-day Adventist General Conference and was renamed the Battle Creek Sanitarium Hospital. In 1993, the hospital became part of the Battle Creek Health System and was subsequently renamed the Behavioral Health Center.

The wooden corridor constructed to unite the Annex and the library building was razed in 1973; the library building, a few years later. The Annex (fig. 98) was placed on the National Register of Historic Places in 1977, but in spite of a fervent campaign by Battle Creek preservationists, it was demolished in 1985.

What Remains of the Temple Today

After the sale in 1942 to the federal government, the Sanitarium buildings became the Percy Jones Army Hospital for casualties of World War II and later the Korean War. In 1953, that facility closed, and the following year offices of the Federal Civil Defense Agency moved into the building. In 1959, the building was made available for use by additional federal agencies and was renamed the Battle Creek Federal Center, its name today. Its principal occupant is the Defense Logistics Services Center, responsible for the Federal Catalog System.

The marble stairways in the lobby of the 1903 building still seem imposing, and the room that was once the Palm Garden can be seen from the entrance, but the interior has been altered greatly to make way for current needs. The dining room of the 1903 building has been divided into many offices, although the paintings just below the ceiling are visible. Those who know the 1903 building well can still point out where the great ventilating ducts brought in fresh air. The gymnasium and the bath wings—their pools long ago covered—survive, but they are so changed that it is

difficult to sense the past.

The 1928 towers addition offers the visitor a more dramatic reminder of the past, for the lobby and its great columns, ornate ceiling, and light fixtures remain. The dining room is still used as such. The fountain has been restored (fig. 99), and Oriental paintings still grace the walls. Although those physical reminders of the Battle Creek Idea live on, the essence of the “Temple of Health” as created by John Harvey Kellogg died long ago.



Fig. 98. The Annex in the 1940s



Fig. 99. After having vanished from the Sanitarium for several years, the fountain once again graces the dining room of the Towers, which is now part of the Battle Creek Federal Center. The fountain proper is the original. The fountain base has been restored, and this photograph is of the reconstruction.



Fig. 100. A view of Battle Creek from the Sanitarium sun roof

Part 6

The Battle Creek Sanitarium: An Appraisal

The Battle Creek Sanitarium was a unique institution. The spas, whose mineral waters became ever more popular throughout the late nineteenth and early twentieth centuries, were its closest rivals in size, but their purpose was often more social than medical; many carefully avoided suggesting that sick people were among their visitors. The fundamental reason for the Battle Creek Sanitarium was to care for sick people, but in a special way. It was, according to a Sanitarium publication, the "center of a reform movement, the essential principle of which is to return to nature and seek for those paths which lead men to harmony with nature and with themselves."⁹⁴ The purpose of the Sanitarium was to care for sick people and to show them how to get well and stay well, without drugs or other artificial means of treatment (fig. 100).

The Sanitarium was an enormously successful institution, thanks not only to Kellogg's personality and great public relations skills but also to his deep belief in health reform, the way he operated the Sanitarium, and the medical program itself.

Kellogg was a highly skilled publicist. He neatly packaged the principles of health reform as the Battle Creek Idea, offered them in a facility of considerable gentility and charm, and successfully marketed them to the American public in a way that no one else had done (figs. 101, 102, 103). He wrote dozens of books and gave thousands of lectures on the Battle Creek Idea, and the Sanitarium produced an unknown number of pamphlets and



Fig. 101. Advertisement for the Sanitas Nut Food Company

BATTLE CREEK S A N I T A R I U M

MALTED NUTS A delicious drink that may be quickly prepared, hot or iced, according to season. One of the finest strengthening and building foods. Malted Nuts is invaluable for growing children, nursing and expectant mothers; an ideal food for babies, as it is the nearest approach to breast milk ever discovered. Fine to sprinkle on foods in place of crushed nuts.

Contains twice as much iron as does cow's milk. Ounce for ounce it supplies more food iron than the best beefsteak and more protein than roast beef, chicken or fish. A boon to those who suffer from headache, constipation or "biliousness" when they take oaks.

- R E C I P E S -

MALTED NUTS CUSTARD
 ¼ cup Malted Nuts or 3½ ozs. Pinch of Salt
 ½ cup Hot Water ½ teaspoonful Vanilla
 1¼ cups Hot Milk Dessert spoonful of Malt-Ex

(Malt Honey)
Dissolve the malted nuts in the hot water, add the beaten egg and hot milk, malt honey, salt and vanilla. Pour it into custard cups and place in a pan of hot water. Bake in a hot oven until firm.

MALTED NUTS CREAM
1 cup Malted Nuts 1 cup Hot Water
1/4 cup Cream
Dissolve the Malted Nuts in hot water and add the cream.

Fruit salads, puddings and short cakes are delightfully improved by a sprinkling of Malted Nuts. And whenever ice cream is served you have instantly a mouth-watering sundae when Malted Nuts garnish the dish. Desserts are far more in

triumph with this food delicacy
w/le.t.

HOT MALTED NUTS

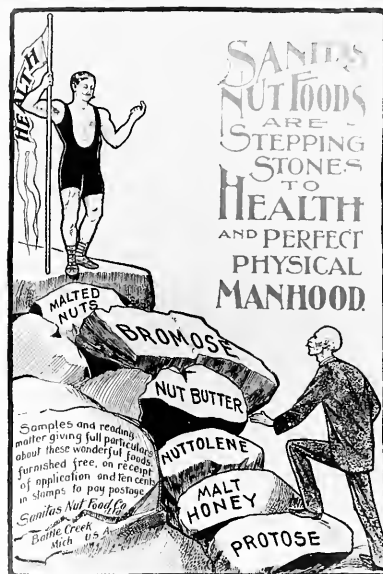
1 cup Hot Water ½ teaspoonful Salt
 2 heaping tablespoonfuls Malted Nuts
 1 teaspoonful Melted Sugar

Dissolve the Malted Nuts in boiling water. Add salt and sugar.



l'ère Six

Fig. 102. This example from a Kellogg recipe book shows how Malted Nuts might be used



HEALTH FOODS

In the effort to meet the necessities of a large Sanatorium, with its great variety of patients, we have produced a number of food preparations adapted to different diseased conditions, the merits of which are such as to secure for them a very large and increasing sale, not only to the persons belonging to the invalid class, but those who wish by "good living" to avoid disease. The following are the leading preparations.

[illegible]

**Sample Packages containing specimens of each of our
Foods sent postpaid for 50 cents. Selected
Samples, 25 cents.**

All grain preparations can be supplied in large or small lots, as we keep a fresh supply constantly on hand of goods which are largely made expressly for us, of a superior quality of grain. Address—

Fig. 103. Kellogg marketed his foods widely, as shown by this advertisement for the Sanitarium Health Food Company

SANITARIUM HEALTH FOOD CO.,
BATTLE CREEK, MICH., U. S. A.



*Fig. 104.
Eddie Cantor
on the
Sanitarium
links*

other pieces of advertising extolling the virtues of both the place and the Idea. Many of Kellogg's books were intended for the general audience; others could be used to teach and implement the idea at places other than the Sanitarium, thus bringing further notice to the Battle Creek phenomenon.

Among his most successful advertising efforts were Sanitarium exhibits at the World's Columbian Exposition, the great fair held in Chicago in 1893, and the Louisiana Purchase Exposition, the 1904 world's fair held in St. Louis. Because the Sanitarium exhibit was placed in the Education Building at the St. Louis fair, Kellogg and others began to refer to the Sanitarium as a "University of Health."⁹⁵

Kellogg recognized the importance of endorsements from well-known personalities. Wealthy businessmen and celebrities came without any urging, and Kellogg

made it easy for others by offering reduced rates or even free accommodations.⁹⁶ Henry Ford was not only a frequent visitor but the first guest in the 1928 Towers addition. Other famous visitors were Presidents William Howard Taft and Warren G. Harding, comedian Eddie Cantor (fig. 104), pianist José Iturbi, arctic explorer Roald Amundsen, industrialist John D. Rockefeller, grape juice manufacturer Edgar Welch, author Upton Sinclair, educator Booker T. Washington, aviatrix Amelia Earhart, and merchandisers J. C. Penney, Montgomery Ward, and S. S. Kresge. First Lady Eleanor Roosevelt (fig. 105) was among the noted visitors, but not as a patient.

Kellogg was a personable leader and very much involved in every aspect of Sanitarium activity. He lectured to guests, talked with them individually, encouraged them, and made them feel his personal

*Fig. 105.
Eleanor
Roosevelt was
among the
famous visitors
who toured the
Sanitarium*



concern and supervision. Every guest must have felt that his or her stay was being personally supervised by the master. Perhaps the thing that ultimately made the Battle

Creek Idea so convincing to so many people, however, was the simple fact that Kellogg believed it absolutely and could sell the Idea with the absolute conviction

that what he was doing would help people.

Kellogg believed in the Battle Creek Idea in part as the result of his early experiences with Seventh-day Adventism but especially because of his own study. He was a well-trained physician and surgeon as well as a health reformer; a voracious reader, he was thoroughly conversant with both medical ideas and health reform ideas. He found explanations in the literature that satisfactorily explained to him why people got sick if they did not live the Battle Creek Idea—and why they got well if they did. He believed without hesitation that sound scientific fact supported all the tenets of health reform.

Kellogg's Sanitarium was a well-run business that was involved in its community. It was always in debt, but until the Depression its credit was good. Kellogg had high standards for care and for the condition of the facility he operated. His efforts in those regards were acknowledged when the Sanitarium was accredited by the American College of Surgeons (fig. 106). The College began the first hospital accreditation plan in the United States in 1917, the purpose of which was to judge whether a hospital met basic standards of organization, service, and patient care. When the first list of accredited institutions was published in 1919, the Battle Creek Sanitarium was on the list.⁹⁷

Community involvement through charitable activities was also part of Sanitarium activity, as attested by close ties to urban missions, statistics of service to the poor in Battle Creek, and John Harvey and Ella Kellogg's personal acts of philanthropy (fig. 107). Between 1876 and 1911, four thousand surgical cases were treated without charge and more than fifteen thousand charity patients were seen for medical problems. Every day, the Sanitarium con-

tributed leftover food to the needy.⁹⁸

There were those who questioned Kellogg's motives, suggesting that he was an entrepreneur who was making money by preying on the sick and by bolstering his own companies by the reputation of the Sanitarium. When the successful development of flaked grains brought all sorts of hucksters and quacks to Battle Creek trying to cash in on food and health, it was easy for some to see Kellogg as the patriarch of all hucksters.⁹⁹ But they were wrong. Kellogg did not make money from the Sanitarium or his companies; he did not prey on wealthy patients. In fact, he accepted no salary as the head of the Sanitarium, and much of the money he made from other enterprises was returned to Sanitarium use, especially to support its charitable activities. In 1910, Kellogg asserted: "[N]o person has ever received one cent of the profits, or earnings. There has been no profit-sharing. As a matter of fact, there have been no profits."¹⁰⁰

The ideas of health reform seemed vague and without foundation to most physicians, and the idea of autointoxication was laid to rest by the medical community while Kellogg was elevating it to its greatest importance. Nevertheless, many aspects of the Battle Creek Idea—particularly good diet and exercise—would find ready acceptance today. The simple expedient of activity in the fresh air and sunshine was beneficial. The daily exercises encouraged cardiovascular fitness, muscle strength, and flexibility; the Sanitarium diet—at least in its broad outlines—came remarkably close to meeting today's criteria for a healthy diet (fig. 108).

Kellogg's concept of a healthy diet was one of the most remarkable elements of the Sanitarium. It led him to develop, with his brother, flaked grains and therefore

*Fig. 106.
Certificate
awarded to the
Sanitarium in
1919 by the
American
College of
Surgeons*



AMERICAN COLLEGE OF SURGEONS

UNCLASSIFIED

BATTLE CREEK · SANITARIUM

AS A CONDITION WITH THE MINIMUM STANDARD REQUIREMENTS OF THE AMERICAN COLLEGE OF SURGEONS AS FOLLOWS:

These rules regulations, in the professional work, provide a final stage of the process on each month.

As the departments may choose to meet separately, it is that the staff review and analyze at regular intervals their clinical experience in the various departments of the hospital, such as medicine, surgery, obstetrics and the other specialties, the clinical records of patients, fees and pay, to be the basis for such review and analyses.

The accurate and complete records be written for all patients and filed in an accessible manner in the hospital; a complete record, being one which includes identification of the patient, personal and family history, history of present illness, physical examination, special examinations such as radiations, a mental laboratory X-ray, and other examinations, provisional or working diagnosis, medication, surgical treatment, progress and response, pathological findings, progress notes, final diagnosis, condition on discharge, follow up, and in case of death, autopsy findings.

THAT diagnostic and therapeutic facilities under competent supervision be available for the safe diagnosis and treatment of patients (these to include, at least, a clinical laboratory providing a chemical, bacteriological, serological or pathological services; a X-ray department providing radiographic and fluoroscopic services

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edible cereals. Far more than that, however, Kellogg was a pioneer in the emerging science of dietetics, the study of the kinds and quantities of food needed for health.¹⁰¹ Although much of his interest in the subject had to do with autointoxication, he was keenly aware that diet played a role in energy, strength, general fitness, weight, and management of certain diseases. Indeed, the Sanitarium had a reputation for the treatment of diabetics with diet.

Several special diets were developed in Battle Creek, but the underlying diet was a vegetarian one that was low in salt, high in fiber, and moderate in calories, with about 30 percent of the daily calorie intake in fat, 60 percent in energy-producing carbohydrates, and 10 percent in protein. Although Kellogg's concept of "moderate" calories was about two thousand per day (which would be considered high for many people by today's standards), the meals served at the Sanitarium were generally well balanced, low in cholesterol, and rich in vitamins and other essential nutrients.

While this seems reasonable to us from the vantage point of late-twentieth-century knowledge of nutrition, Kellogg had very little information on which to draw when he put his plan together. Fats, proteins, and carbohydrates were being studied extensively in the late nineteenth century, but there were varying ideas on the importance of each to nutrition and how much of each was essential to health. Most of Kellogg's contemporaries believed that far more protein than the 10 percent Kellogg allowed was necessary and that the only way to acquire the necessary amount was with a meat diet. Near the end of the nineteenth century, more than double the amount of protein recommended by



Fig. 107. Kellogg and his wife Ella made a kind of school of their home. They married in 1879, and over the following years, the couple adopted forty-two children. Kellogg fashioned his role as father to be one of teaching them the principles of healthy living. He was a stern disciplinarian who believed in a regimented life for the children. Part of his concern for healthy living was a concern for moral behavior and attitudes. Kellogg often wrote about what he considered moral behavior, especially in children, and enforced his concepts at home.

Kellogg was accepted as standard. A few studies in the early twentieth century suggested that the lesser amount was sufficient and that it could be obtained from a vegetarian diet, but it was several decades before vegetarianism was accepted as a viable dietary plan. An understanding of saturated and unsaturated fats was not available, although by stressing vegetable fats Kellogg gave emphasis to unsaturated ones. The importance of cholesterol was

Fig. 108. This holiday menu, which featured a variety of fruits and vegetables, exemplified the healthful Sanitarium diet. Protose was a vegetable product used as a substitute for meat.



Canape 44		
Cream of String Bean Soup 64		Creole Chowder 121
Tomato Salad 64	Ripe Olives 104	Stuffed Celery 125
Mushrooms Allemande 82		
Protose with Dressing—Mint Jelly 126 68		
French Artichokes—Drawn Butter Sauce 90 94		
Squash on Half Shell 74		
Mashed Potatoes 78	Scalloped Potatoes 147	
Citron Buns 129	Rye Bread 108	
Graham Bread 68		
Cardinal Punch 93	Minute Brew 10	
Acidophilus Buttermilk 96		
Henri Apricot Ice 161	Santa Cake 208	
Banbury Tarts 5-3		
Bosc Pears 101	Delicious Apples 116	
Brazil Nuts 197		



Fig. 109. Kellogg developed a lush, tropical palm garden in the Sanitarium rotunda. Birds and butterflies flew freely among the banana, fig, and orange trees. Because glass separated the garden from the lobby, guests could enjoy the miniature tropical paradise from any point. Kellogg was often to be found in or near the garden tending to one of his favorite orchids, which he had placed throughout the Sanitarium.

Early in the century, Kellogg adopted white as his wardrobe, claiming that it allowed the healthful rays of the sun to penetrate to the skin and kill germs.

unrecognized, although by limiting the fat content of the diet he lessened the cholesterol intake; and vitamins, although long suspected, were not identified until the second decade of the twentieth century.

With a reasonably good diet, fresh air, and exercise, it is not surprising that many patients felt better when they left the

Sanitarium, or that many of them returned time after time. Through simple means, Kellogg (fig. 109) taught several thousand people that they had a role to play in their own health. Many more thousands still believe that today, pursuing health through activities that are, in many ways, reminiscent of the Battle Creek Idea.



Fig. 110. Ready for an excursion in the fresh air



Part 7

Further Reading and Notes

AMONG THE MOST important sources for information on the Sanitarium buildings, facilities, and activities are "The Sanitarium Buildings," *Health Reformer*, Sept. 1877, 257-61; *Description of the Medical and Surgical Sanitarium Located at Battle Creek, Mich.* (Battle Creek: n.p., 1888); *Battle Creek Idea*, May 1904, 1-7; *The Battle Creek Sanitarium Book* (Battle Creek: n.p., [1912]); and all issues of *Battle Creek Idea*, especially "Elegant New Sanitarium Building Now Ready for Occupancy," Summer 1928, 6-7. For Kellogg's theories and methods, consult his major publications: *The Uses of Water in Health and Disease* (Battle Creek: Office of the Health Reformer, 1876); *The Art of Massage: Its Physiological Effects and Therapeutic Applications* (Battle Creek: Modern Medicine Publishing Co., 1895); *The Ladies' Guide in Health and Disease* (Battle Creek: Modern Medicine Publishing Co., 1901); *Rational Hydrotherapy: A Manual of the Physiological and Therapeutic Effects of Hydratic Procedures, and the Technique of Their Application in the Treatment of Disease* (Philadelphia: F. A. Davis Co., 1901); *Light Therapeutics: A Practical Manual of Phototherapy for the Student and the Practitioner*, rev. ed. (Battle Creek: Sanitarium and Hospital Equipment Co., 1910); *The Value of Vibrotherapy as a Therapeutic Measure* (Battle Creek: Good Health Publishing Co., 1913); *Colon Hygiene: Comprising New and Important Facts Concerning the Physiology of the Colon and an Account of Practical and Successful Methods of Combating Intestinal Inactivity and Toxemia* (Battle Creek: Good Health Publishing Co., 1915); *Autointoxication; or, Intestinal Toxemia* (Battle Creek: Modern Medicine Publishing Co., 1922).

Notes

1. Gerald Carson, *Cornflake Crusade* (New York: Rinehart & Company, Inc., 1957), 12.

2. Among many books and articles on health reform, see James C. Whorton, *Crusaders for Fitness: The History of American Health Reform* (Princeton: Princeton University Press, 1982); Harvey Green, *Fit for America: Health, Fitness, Sport, and American Society* (New York: Pantheon Books, 1986); Susan Cayleff, *Wash and Be Healed: The Water-Cure Movement and Women's Health* (Philadelphia: Temple University Press, 1987).

3. The journal first appeared in December. It was a semi-monthly publication at first, becoming a monthly in 1848. It was published by Fowler and Wells of New York.

4. On Ellen White, see Ronald L. Numbers, *Prophetess of Health: Ellen G. White and the Origins of Seventh-day Adventist Health Reform* (Knoxville: University of Tennessee Press, 1992), a revised and enlarged edition of Ronald L. Numbers and Janet S. Numbers, *Prophetess of Health: A Study of Ellen G. White* (New York: Harper & Row, 1975).

5. "Articles of Association," in *Minutes of the Board of Directors of the Health Reform Institute, April 25, 1867-October 8, 1876*, Combined Collection of Garth ("Duff") Stoltz, Battle Creek, and Adventist Heritage Ministry, Silver Spring, Md. (hereafter cited as Combined Stolz/Adventist Heritage Ministry Collection).

6. As quoted in Numbers, *Prophetess of Health* (1992), 105.

7. *Ibid.*, 105-9.

8. *Ibid.*, 102-28; Richard William Schwarz, *John Harvey Kellogg, M.D.* (1970; rpt. Berrien Springs, Mich.: Andrews University Press, 1981), 27 (based on Schwarz, *John Harvey Kellogg: American Health Reformer* [Ph.D. diss., University of Michigan, 1964]).

9. Schwarz, *John Harvey Kellogg, M.D.*, 27-32.

10. *Ibid.*, 61.

11. *Minutes of the Board of Directors*, Aug. 17, 1874, and April 8, May 26, Aug. 18, 1875.

12. As quoted in Schwarz, *John Harvey Kellogg, M.D.*, 62.

13. *Description of the Medical and Surgical Sanitarium Located at Battle Creek, Mich.* (Battle Creek: n.p., 1888), 14.

14. Kellogg, "A Talk to Women," *Battle Creek Idea*, Mar. 3, 1911, 1. Filled with details of Sanitarium events and operations, *Battle Creek Idea* was published sporadically until Dec. 12, 1907, when it became a weekly.

15. Kellogg, *The Ladies' Guide in Health and Disease* (Battle Creek: Modern Medicine

Publishing Co., 1901), 263-66.

16. *Minutes of the Board of Directors*, April 18, 1876.

17. "The Sanitarium Buildings," *Health Reformer* 12 (1877): 257.

18. *Ibid.*, 260.

19. *The Household Manual of Health* (Battle Creek: Good Health Publishing Co., 1891), 205.

20. "Sanitarium Buildings," 261.

21. *Description of the Medical and Surgical Sanitarium*, 9.

22. *Ibid.*, 29.

23. *The Battle Creek Sanitarium Book* (Battle Creek: n.p., [1912]), 123.

24. *Description of the Medical and Surgical Sanitarium*, 26.

25. *Nature's Foods* (Battle Creek: Sanitarium Health Food Company, 1899), 9.

26. After cornflakes were developed, another company called the Battle Creek Toasted Corn Flake Company was opened under the direction of W. K. Kellogg. In 1907, John Harvey decided to change the name of Sanitas to the Kellogg Food Company, and W. K. changed the name from Battle Creek Toasted Corn Flake Company to the Kellogg Toasted Corn Flake Company. For the next several years, the brothers argued in court over who had the right to use the Kellogg name. In 1920, the court gave the right to W. K. See Schwarz, *John Harvey Kellogg, M.D.*, 209-19.

27. *Ibid.*, 122.

28. *Ibid.*, 97-99.

29. *Ibid.*, 99-100.

30. *Ibid.*, 104-6.

31. *Ibid.*, 164-66.

32. *Ibid.*, 166.

33. *Ibid.*, 140.

34. *Ibid.*, 65-66.

35. *Ibid.*, 68-69.

36. *Ibid.*, 66-67.

37. *Ibid.*, 68.

38. Clipping dated Feb. 19, 1902, Newspaper Clipping File, Willard Library, Battle Creek (hereafter cited as Willard Library Clipping File); *Description of the Medical and Surgical Sanitarium*, 8; "Sanitarium Buildings," 261.

39. Undated items, Willard Library Clipping File. Although the file is rich with bits of information about the Sanitarium, many clippings are not identified or dated; nevertheless, it is not difficult to date them by their contents. According to Schwarz *John Harvey Kellogg, M.D.*, 71), the value



of the property was \$350,000.

40. Willard Library Clipping File.

41. Schwarz, *John Harvey Kellogg, M.D.*, 70–73.

42. *A Great Philanthropic Enterprise: Report on the Battle Creek Sanitarium by the Citizens' Committee* (Battle Creek: n.p., n.d.), 8.

43. *Ibid.*

44. *Ibid.*, 14.

45. Schwarz notes that many pledges were never paid and that much of the new Sanitarium was financed by the Sanitarium Food Company and by Kellogg's private companies. Kellogg later gave the amount raised from Battle Creek residents as \$27,000. Schwarz, *John Harvey Kellogg, M.D.*, 72–74; "Sanitarium Not Ousted," *Battle Creek Idea*, May 13, 1910, 3.

46. "The New Temple of Health" and "A Visitor's Glance at the Inside of the New Sanitarium," *Battle Creek Idea*, May 1904, 1–2, 4.

47. Schwarz, *John Harvey Kellogg, M.D.*, 126.

48. "New Temple of Health."

49. *Ibid.*

50. *Battle Creek Sanitarium Book*, 29.

51. "New Temple of Health."

52. Carson, *Cornflake Crusade*, 114.

53. The 1910 figures are from "Purveying for the Sanitarium," *Battle Creek Idea*, Jan. 21, 1910, 3–4; the 1921 figures are from a document in the Combined Stolz/Adventist Heritage Ministry Collection.

54. "Laundering for the Sanitarium," *Battle Creek Idea*, Mar. 10, 1911, 4.

55. *Battle Creek Idea*, Jan. 23, 1908, 3.

56. "The Sanitarium Dispensary," *Battle Creek Idea*, Feb. 18, 1910, 3.

57. *Minutes of the Michigan Sanitarium and Benevolent Association*, June 26, 1913, Combined Stolz/Adventist Heritage Ministry Collection.

58. *Ibid.*, July 22, 1912.

59. Schwarz, *John Harvey Kellogg, M.D.*, 74.

60. Kellogg's books on the subject include *Colon Hygiene* (Battle Creek: Good Health Publishing Co., 1915), *Autointoxication; or, Intestinal Toxemia* (Battle Creek: Modern Medicine

Fig. 111. An exercise class at the entrance to the 1903 building

Publishing Co., 1922), and *The Itinerary of a Breakfast* (New York: Funk and Wagnalls Co., 1920). That Kellogg accepted autointoxication between 1891 and 1898 is based on the lack of mention in his 1891 *Monitor of Health* and his discussion in *Rational Hydrotherapy* (Philadelphia: F. A. Davis Co., 1901), which was written between 1898 and 1899.

61. For a summary of ideas on autointoxication, see Robert P. Hudson, "Theory and Therapy: Ptosis, Stasis and Autointoxication," *Bulletin of the History of Medicine* 63 (1980): 392-413. Patients with tuberculosis were accepted before 1890, but after the turn of the century the Sanitarium did not admit anyone with a communicable illness. *Medical and Surgical Sanitarium*, 14; *Battle Creek Sanitarium Book*, 19.

62. See, for example, Kellogg, "Surgery of the Ileo/Cecal Valve," *Surgery, Gynecology and Obstetrics* 17 (1913): 563-76.

63. "Examination of Patients," *Battle Creek Idea*, Jan. 7, 1910, 1, 6.

64. *Battle Creek Sanitarium Book*, 140.

65. Kellogg frequently mentioned the necessity of three or four movements a day; see, for example, *Itinerary of a Breakfast*, 23.

66. A copy of the lyrics and music is in the Combined Stolz/Adventist Heritage Ministry Collection.

67. L. Mazzuchelli, "Dr. Zander's Apparatus for Medico-Mechanical Gymnastics," *International Journal of Surgery and Antiseptics* 1 (1888): 235-41.

68. On Kellogg's stay in Wilmington and the exhibit, see Carson, *Cornflake Crusade*, 94-95. He may have ordered some Zander equipment from Sweden after returning from his trip because his article "A Hygienist Abroad" (*Good Health*, Aug. 1883, 246-49) refers to equipment being sent.

69. "The Battle Creek Mechanical Horse," *Bulletin No. 8* (Battle Creek: Sanitarium Equipment Co., n.d.).

70. See, for example, *Battle Creek Sanitarium Book*, 80-81.

71. "Observations on the Relation of Posture to Health and a New Method of Studying Posture and Development," pamphlet reproduced from the *Bulletin of the Battle Creek Sanitarium and Hospital Clinic* 22 (1927), copy in Combined Stolz/Adventist Heritage Ministry Collection.

72. A copy of the recording (manufactured in 1923 by Columbia Records under the title "Health Ladder") and the book are in the Combined

Stolz/Adventist Heritage Ministry Collection. According to August F. Bloese, Kellogg's secretary, the recording was never distributed; August F. Bloese, *August F. Bloese, Former Secretary to Dr. John Harvey Kellogg, in First Person: An Oral History* (Ann Arbor, Mich.: L. E. Weeks, 1985), 72. Columbia Records has not been able to provide additional information.

73. "Electricity as Used at the Sanitarium," *Battle Creek Idea*, Mar. 12, 1908, 2, and "Electrical Treatment at the Sanitarium," *Battle Creek Idea*, Aug. 6, 1908, 3.

74. Kellogg, "Mineral Springs," *Health Reformer* 10 (1875): 274.

75. Kellogg, *The Uses of Water in Health and Disease* (Battle Creek: Office of the Health Reformer, 1876), 78.

76. Kellogg, *Rational Hydrotherapy*, 556-58. For comfort during the long bath, he recommended suspending the patient in a hammock or providing a soft mat of excelsior.

77. *Battle Creek Sanitarium Book*, 30.

78. For more information on Kellogg's light baths, see Schwarz, *John Harvey Kellogg, M.D.*, 125, and Sidney Licht, "History of Therapeutic Heat," in *Therapeutic Heat*, ed. Licht (Baltimore: Waverly Press, 1958), 179-210.

79. For Kellogg's ideas on light, see his *Light Therapeutics*, rev. ed. (Battle Creek: Good Health Publishing Co., 1910). For general background, see Sidney Licht, "History of Ultraviolet Therapy," in *Therapeutic Electricity and Ultraviolet Radiation*, ed. Licht, 2nd ed. (Baltimore: Waverly Press, 1967), 191-211.

80. *Battle Creek Sanitarium Book*, 70, 166.

81. *Ibid.*, 6; *Battle Creek Sanitarium* (Battle Creek: Good Health Publishing Co., n.d.), copy in Combined Stolz/Adventist Heritage Ministry Collection.

82. *Annual Report of the Battle Creek Sanitarium and Hospital with Summaries of the Work of the Institution Since Its Establishment* (Battle Creek: Printed by order of the Trustees, 1910).

83. On the purchase, see Willard Library Clipping File, Feb. 4, 1913.

84. Robert Ernst, *Weakness Is a Crime: The Life of Bernarr McFadden* (Syracuse: Syracuse University Press, 1991). On the use of the building for the workers and their families, see Willard Library Clipping File, Feb. 4, 1913.

85. *Proceedings of the First National Conference on Race Betterment . . . 1914*, Battle Creek, Michigan

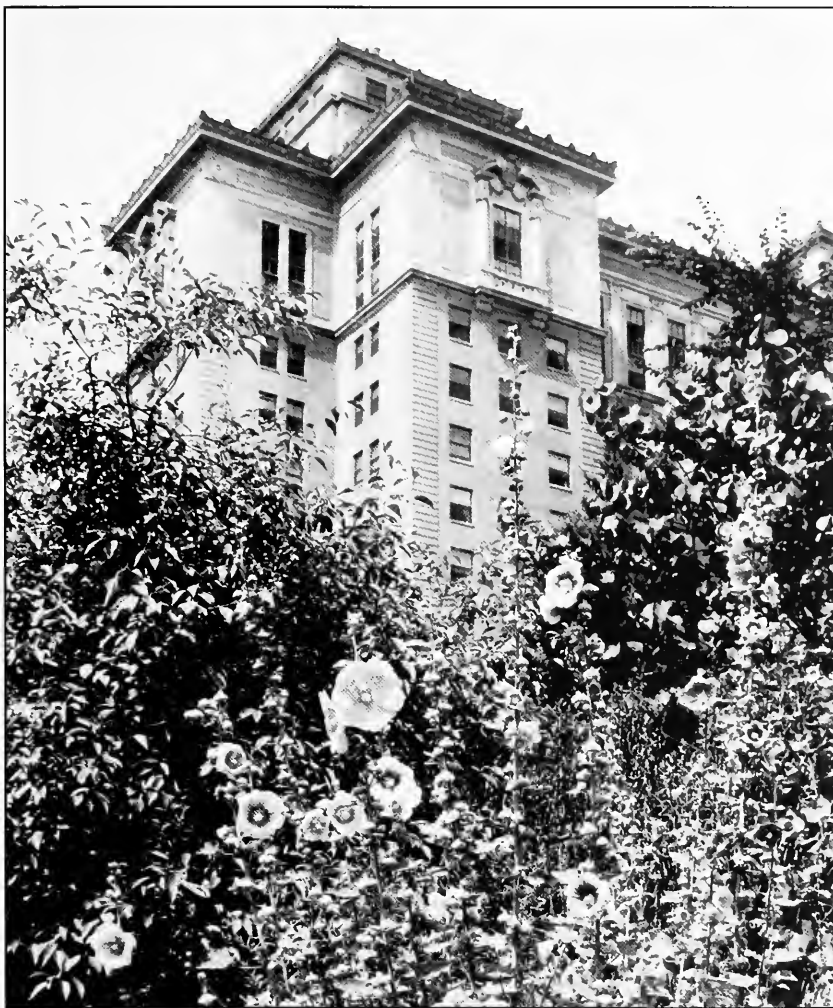


Fig. 112.
Hollyhocks in
bloom around
the 1903
Sanitarium

(Battle Creek: Gage Printing Company, Ltd., 1914), 431-50, 564, 579-80, 583, 584; *Official Proceedings of the Second National Conference on Race Betterment . . . San Francisco, California* (Battle Creek: Race Betterment Foundation, 1915). See

also Kellogg's views in "We Are a Dying Race," *Battle Creek Idea*, Nov. 11 (1-2), 18 (1-3), 1910; "Necessity for National Health Reform" and "The Causes of Race Degeneracy," *Battle Creek Idea*, July 21, 1911, 1-4; and "Degeneracy of Mankind,"

Battle Creek Idea, Oct. 27, 1911, 1-2. Kellogg was also interested in the relation of moral values and health. See, for example, his *Plain Facts for Old and Young* (Battle Creek: n.p., 1877, 1886).

86. Bloese, *August F. Bloese*, 113.

87. "Elegant New Sanitarium Building Now Ready for Occupancy," *Battle Creek Idea*, Summer, 1928, 6-7.

88. The description of the dining room is from Leta Browning, "The Venetian Dining Room," typescript in Willard Library. Information on the fountain was given to me by Doris Longman, a 1931 graduate of Battle Creek College who worked at the Sanitarium while she was a student; Longman to author, Feb. 9, 1994.

89. "Elegant New Sanitarium Building," 7.

90. For the history of the demise of the Sanitarium, see Schwarz, *John Harvey Kellogg, M.D.*, 230-41.

91. The Miami Battle Creek property was given to Kellogg for a Sanitarium branch by Glen Curtiss, an aviation manufacturer. *Ibid.*, 80.

92. A brief history of the changes in the building ownership is John E. Buchmeier, *A Tour Through the Past & Present of the Battle Creek Federal Center* (Battle Creek: Battle Creek Federal Center, 1987).

93. Willard Library Clipping File, April 4, 1956.

94. *The Reason Why of the Battle Creek Sanitarium Ideas about Diet: The Battle Creek Sanitarium System of Health Culture; The World-wide Extension and Popularity of the Battle Creek Idea*

(Battle Creek: Gage Printing Co., Ltd., 1910).

95. "A University of Health," *Battle Creek Idea*, Sept. 8, 1911, 1-2.

96. Schwarz, *John Harvey Kellogg, M.D.*, 75.

97. *Bulletin of the American College of Surgeons* 4 (1919): 27.

98. *Annual Report of the Battle Creek Sanitarium* (Battle Creek: Printed by Order of the Trustees, 1911), 33; *Annual Report of the Battle Creek Sanitarium* (Battle Creek: Printed by Order of the Trustees, 1922), 10; "Sanitarium Dispensary," 3.

99. A recent attempt to use the Sanitarium to poke some fun at the health food industry paints an unflattering picture of Kellogg. It is T. Coraghessan Boyle, *The Road to Wellville* (New York: Viking, 1993). The author's interpretation presents a far-fetched and inaccurate picture of the Sanitarium and Kellogg.

100. "Sanitarium Not Ousted," 2.

101. Kellogg made instruction in diet therapy part of the curriculum of his various schools from 1878, and the principal purpose of the School of Health and Home Economics (established in 1905) was to train dietitians. Graduates of the Battle Creek schools were among the leaders in dietetics. Leena Frances Cooper, a 1901 graduate of the Training School of Nurses, wrote a classic textbook in dietetics, was a founder of the American Dietetic Association in 1917, served as supervising dietitian for the U.S. Army, and was chief dietitian at Montefiore Hospital in New York City.



*Fig. 113. The
colonnade*

Picture Credits

The Battle Creek Sanitarium had its own photographic studio that produced thousands of images used for publicity purposes and for the many books written by the Sanitarium's director, John Harvey Kellogg. Some of the illustrations used in this book are taken directly from the publication in which they appeared, but most are from photographs in the studio collection, which is now part of the Combined Collection of Garth ("Duff") Stoltz of Battle Creek and the Adventist Heritage Ministry of Silver Spring, Maryland. Although most of the studio photographs appeared in one or more publications, no attempt is made here to cite specific publications in which they appeared unless the publication was the sole source of the picture reproduced in this book.

Cover: This artist's rendering of the Sanitarium entrance was the cover of *The Sanitarium* (n.p., n.d.), a small booklet published probably around 1920. The booklet also contains a 1913-copyrighted map of railroad routes to the Sanitarium. The booklet is in the Combined Collection of Garth ("Duff") Stoltz and the Adventist Heritage Ministry.

Figures 1, 13: *Sanitarium Souvenir* (Battle Creek: n.p., n.d.).

Figure 2: John Harvey Kellogg, *Uses of Water in Health and Disease* (Battle Creek: Office of the Health Reformer, 1876).

Figure 3: John Harvey Kellogg, *Plain Facts for Old and Young* (Burlington, Iowa: Segner & Condit, 1881).

Figure 4: *The Water-Cure Journal and Herald of Reforms, Devoted to Physiology, Hydropathy, and the Laws of Life* 20 (July 1855).

Figures 5, 7, 9, 10, 11, 16, 17, 20, 21, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37 (tracing from a plat book), 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50 (actual

object), 51 (actual object), 52, 53, 54, 55, 59, 60, 61, 62, 63 (actual object), 64, 67, 68, 69, 70, 71, 72, 82, 83, 84, 85, 86, 87, 88, 91, 92, 94, 95, 96, 97, 98 (original by Robert J. Anderson & Co., Detroit), 100, 101, 104, 105, 106 (actual object), 107, 108, 109, 110, 111, 112, 113, 114, 115, 116: Combined Collection of Garth ("Duff") Stoltz and the Adventist Heritage Ministry.

Figures 6, 56: Charles F. Taylor, *Theory and Practice of the Movement Cure* (Philadelphia: Lindsay & Blakiston, 1861).

Figures 8, 14, 15, 18, 19: *Description of the Medical and Surgical Sanitarium Located at Battle Creek, Michigan* (Battle Creek: n.p., 1888).

Figure 12: "The Sanitarium Building," *Health Reformer*, Sept., 1877.

Figures 23, 93: Photographs from the Dr. Carl Martinson Library, courtesy of Elmer J. Martinson, M.D., Wayzata, Minn.

Figure 37: Author's tracing from a plat book in the Combined Collection of Garth ("Duff") Stoltz and the Adventist Heritage Ministry.

Figure 47: John Harvey Kellogg, *The Battle Creek Sanitarium Diet List* (Battle Creek: Good Health Publishing Co., 1916).

Figure 50: Photograph by Jim Edmonson, Cleveland, of object in the Combined Collection of Garth ("Duff") Stoltz and the Adventist Heritage Ministry.

Figures 51, 63, 106: Photographs by Glen Cemer, Battle Creek, of objects in the Combined Collection of Garth ("Duff") Stoltz and the Adventist Heritage Ministry.

Figures 57, 58: John Harvey Kellogg, "The Home Gymnasium: Mechanical Exercise," *Good Health* 31 (1896).

Figures 65, 66: *The Battle Creek Sanitarium Book* (Battle Creek: n.p. [ca. 1912]).



Fig. 114. Checking into the Sanitarium

Figures 73, 74, 75, 76, 77, 78, 79, 80, 81: John Harvey Kellogg, *Rational Hydrotherapy* (Philadelphia: F. A. Davis Co., 1901).

Figure 80: John Harvey Kellogg, *Light Therapeutics: A Practical Manual of Phototherapy for the Student and the Practitioner*, rev. ed. (Battle Creek: Sanitarium and Hospital Equipment Co., 1910).

Figure 89: "Elegant New Sanitarium Building Now Ready for Occupancy," *Battle Creek Idea*, Summer 1928.

Figure 90: John E. Buchmeier, *A Tour*

Through the Past & Present of the Battle Creek Federal Center (Battle Creek: Battle Creek Federal Center, 1987).

Figure 99: Photograph by Glen Cemer, Battle Creek.

Figure 102: *Recipes for Everybody* (Battle Creek: Battle Creek Food Company, n.d.).

Figure 103: *William H. Armstrong & Company Catalog of Surgical Instruments* (Indianapolis: Levey Bros. & Co., Printers, 1894).



Fig. 115. *The Sanitarium in winter*

About the Author

The author is the Chief Curator of the Dittrick Medical History Center, which includes a medical history museum, an archives, and a rare book collection. She has a Ph.D. in the History of Science and is an Adjunct Associate Professor of History at Case Western Reserve University. In addition to her interest in medical history, she has done research in the history of geology, and in 1994 her book *Henry Darwin Rogers, 1808–1866, American Geologist* was published by the University of Alabama Press. Her interest in the Battle Creek Sanitarium developed after a brief phone call, as she describes in the following:

One morning several years ago, I received a phone call from a journalist who was in this country to work on a British television documentary on the cereal industry. While in Battle Creek to visit the Kellogg Company and gain insight into its history, she was introduced to Garth “Duff” Stoltz. Duff, who works for the modern hospital descendant of the Sanitarium, has been collecting Sanitarium memorabilia for many, many years, both for himself and for the historical archives of the Seventh-day Adventists. He has amassed a very large collection of equip-

ment (from Indian Clubs to abdominal-kneading machines), Sanitarium publications, and photographs. It is a collection that reflects the entire history of the Sanitarium.

The British visitor was quite impressed and wanted to be sure that people in the United States who work with medical history collections, as I do, knew about it. I was one of the people she contacted. At the time I knew very little about the Sanitarium, but I was intrigued. I arranged to visit Battle Creek to see Duff’s collection. I was unsure of just what lay in store for me, but on the way to see his collection, I got my first look at the Sanitarium buildings—and from that moment I was fascinated. His collection—especially the photographs—reinforced the fascination. There are, I suspect, several thousand photographs, documenting nearly every aspect of Sanitarium activity. Many of them were rescued by Duff from certain destruction when the Annex was demolished in 1985.

Once I saw the photographs, I knew that I wanted to prepare a pictorial history of this institution so that others could learn about it, for certainly the Sanitarium was one of the grandest experiments in health care in the nineteenth and twentieth centuries.

Publications of the Department of Medical Humanities

The Pearson Museum

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Send orders and requests for information to the Department of Medical Humanities-1113, Southern Illinois University School of Medicine, P.O. Box 19230, Springfield, IL 62794-1113; or call (217) 782-4261.

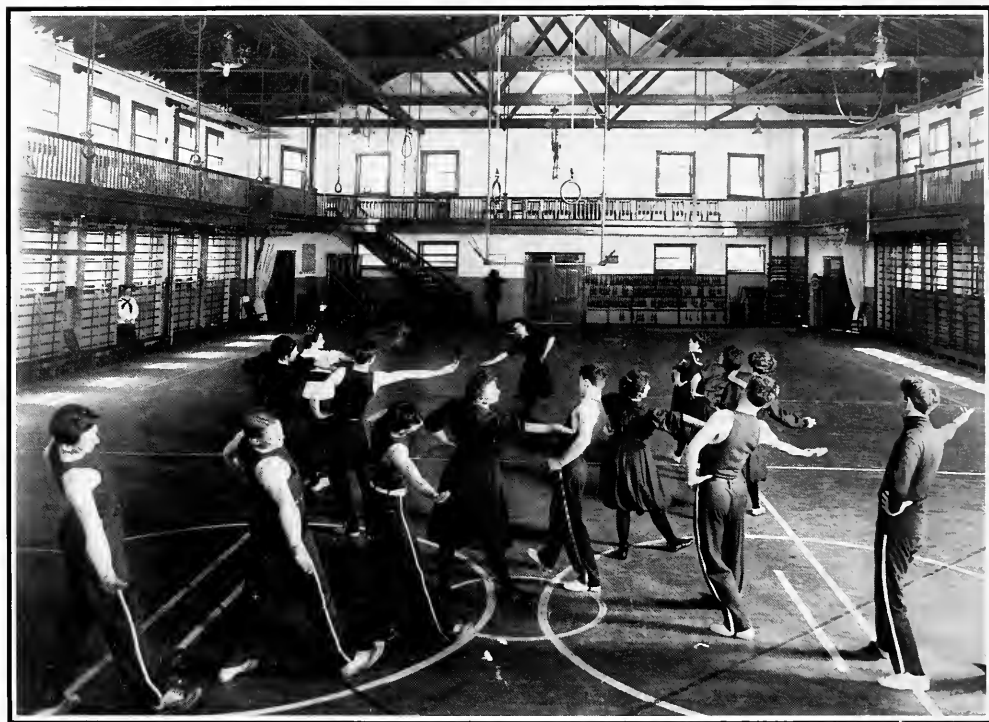


Fig. 115. This photograph shows students from the Normal School of Physical Education, one of many departments of the Battle Creek Sanitarium, Battle Creek, Michigan.